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*Fire Damage*  
FROM INCREASED RUN-OFF AND EROSION  
SAN BERNARDINO NATIONAL FOREST

CHARLES C. BUCK, WALLACE L. FONS  
AND  
CLIVE M. COUNTRYMAN



1948

California Forest and Range Experiment Station  
Berkeley, California  
Stephen N. Wyckoff, Director

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Other agencies and individuals, in addition to those primarily responsible for the work, contributed in a real way to successful conclusion of the study. Some gave helpful suggestions. Others furnished basic information essential to the study. Particularly helpful were personnel of the U. S. Engineer Office, Los Angeles; Los Angeles County Flood Control District; Los Angeles Office of U. S. Geological Survey; Los Angeles and San Francisco Offices of U. S. Weather Bureau; Washington Office of Division of Forest Influences Research; Experiment Station Division of Flood Control Surveys; Los Angeles County Department of Forester and Fire Warden; Ventura County Water District; Orange County Water District; city water departments; and many local water companies.



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## THE WATERSHED FIRE DAMAGE STUDY

Many of the foregoing damages can be evaluated in dollars by direct field examination immediately after a fire. Damages due to changed run-off and erosion rates of a watershed, on the other hand, usually accumulate for varying periods of years after fire. This portion of fire damage -- termed here "watershed fire damage" -- must therefore be predicted in advance of actual occurrence if the appraisal of total fire damage is to serve a useful purpose in current fire control practice. The only practical way thus far proposed by which this can be done is to establish the relationships between run-off and erosion and damage and then to estimate the damages by forecasting the changes in run-off and erosion brought about by fire. This involves an inventory and a detailed systematic analysis of a large number of complex physical and economic factors that enter into the problem. Such analyses for fire damage appraisal purposes have not been made heretofore.

The present study was initiated as an exploratory step in this new field. Its objective was to provide estimates of watershed fire damage that would serve as a practical basis for fire damage appraisals on the southern California national forests. To accomplish this objective it was necessary first to bring into focus and then to evaluate on a physical basis various aspects of damage which have previously been overlooked or merely estimated from personal judgment alone. The study, concerned exclusively with the watershed damage portion of total fire damage, was carried out in three separate phases: (1) developing and adapting appropriate methods for each of the many steps required in the actual calculations, (2) gathering data on each of the physical and economic factors concerned, and (3) subjecting the data to analysis and compiling the damage estimates.

Many of the methods used were new and previously untried. Many compromises were necessary, owing to meager records of past watershed performance and other important factors, and to other causes. Even with these limitations, however, the results appear to be generally acceptable for land management purposes.

This publication, which represents part of the end result of the study, contains tables of estimated run-off and erosion damages of different kinds resulting from fire on watersheds of the San Bernardino National Forest. The tables do not include such damages as those resulting from destruction of improvements, forage, timber, recreation uses and the like by fire itself. These direct fire damages must be appraised separately and added to the watershed damages tabulated in this volume. Some of these other damages are listed on page viii.



## NATURE OF WATERSHED DAMAGES CONSIDERED

Watershed damages for the purpose of this study are limited primarily to the dollar costs directly attributable to run-off and erosion from the mountain areas. These costs are the expenses met with in using and maintaining land, improvements, and resources. They include repairs to improvements damaged or sale value of those destroyed by run-off and erosion, as well as such indirect costs as emergency expenditures required to maintain uses and services during storm periods, and expense for rental of alternate facilities during the periods required for repair or replacement of those damaged by floods.

Detailed studies of the southern California flood and erosion problem have indicated that increased rates of run-off and deposition of debris downstream may persist for many years after fire. The potential increases above the normal rates are largest the first year, moderate for about 5 years, and then decline slowly for the remaining years required for complete recovery of the watershed. The evidence indicates that many watershed units require considerably in excess of 50 years for return to normal. In appraising watershed damage resulting from fire, it is thus necessary to cumulate the damages from increased run-off and erosion on the burned area each year during the recovery period.

The watershed damages tabulated in this publication represent differences between (1) estimated damage cumulated from time of burning to time of complete watershed recovery and (2) estimated damage which would have taken place during the same period had the fire not occurred. The damages which will actually accrue in any particular year on either a burned or on an unburned watershed depend among other things on the amount, intensity, and distribution of the precipitation that year. Since there is no way of telling what this will be for individual future years, the results of the study indicate only the most probable damages over a long period of time that can be expected for a fire of average intensity and average location within a watershed unit. For any individual fire the actual damage that will be experienced may, of course, be either greater or less than the average because of an odd sequence of flood years or other unforeseeable circumstances.

The damage estimates, expressed in dollars, are based on 1941 price levels. It was assumed for purposes of this study that this price level would prevail during the period in which the damages are expected to accrue. No allowance was made for future developments in either the upstream or the downstream flood paths, nor for changes in present watershed performance caused by future fires. Revision of the estimates should thus be made from time to time as changing conditions warrant.





## WATERSHED DAMAGE ESTIMATES

For application of the principles and methods developed in the damage appraisal study, the San Bernardino National Forest has been divided into 51 damage appraisal units. Each unit consists of the upstream portion of a single stream, a major tributary, or a slope facet.

Within each of these units the peak discharge per square mile for each flood event and the volume of debris per year per square mile of watershed were determined as the two basic measures of watershed performance on which to base the calculations of watershed damage. These measures of run-off and erosion were estimated from analysis of past records of precipitation, streamflow, sedimentation, and of such watershed factors as geology, soils, shape and steepness of watershed, and kind and condition of the vegetation. Run-off and erosion rates were applied uniformly to all upstream areas within the individual appraisal units.

For the purpose of this study it was assumed that storms of given size and intensity in the future will have the same average frequency of occurrence as the available records show them to have had in the past. Estimates of run-off and erosion under this precipitation pattern were prepared for each watershed when normal--with fully recovered vegetation, for each year after burning, and for each year from 1945 to estimated time of recovery from past fires<sup>1/</sup>. Recovery periods vary widely between different watersheds covered by the study. The majority, however, appear capable of recovering to near normal within 70 years. Hence, for simplicity in calculating damages on all watersheds were cumulated for this 70 year period.

Because of the non-uniform distribution of upstream values and differences in their susceptibility to damage, each appraisal unit was further subdivided into one or more slope and canyon bottom zones. These are areas considered to be sufficiently uniform in character that average damage rates can be applied without excessive error. The zones have been designated as:

- Zone 1 - upper slopes with prevailing north exposures
- Zone 2 - lower slopes with prevailing north exposures
- Zone 3 - principal canyon bottoms susceptible to flooding
- Zone 4 - lower slopes with prevailing south exposures
- Zone 5 - upper slopes with prevailing south exposures

Appraisal units were divided into two or more appropriate zones whenever differences were apparent, either in damageable values at stake or in damage rates for any given storm occurrence.

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<sup>1/</sup> Peak Discharge and Erosion from Southern California Watersheds as Influenced by Fire. P. B. Rowe, H. C. Storey and C. M. Countryman, typewritten manuscript.





Damageable values associated with each watershed unit and zone were compiled from two sources. Downstream values were obtained from both published and unpublished data collected by the Corps of Engineers and by the Department of Agriculture Surveys for Flood Control for areas in which such surveys have been made. The remaining downstream values and all upstream values, together with their susceptibilities to damage, were obtained from field inventories made as part of the damage appraisal study.

Damage to each of the different kinds and locations of values considered in the study was calculated separately according to the way each is normally affected by the occurrence of run-off and debris movement. The many steps required in the analysis are too numerous for inclusion here, but will be described in a later paper. Different methods were developed for determining the three kinds of damage recorded in the damage tables. The basic differences were as indicated below.

Upstream damages and those in the downstream overflow area were computed in terms of physical damage to the inventoried improvements by individual storms weighted according to their frequency of occurrence, plus any loss suffered by the use associated with each improvement item as a result of physical damage to the property.

The cost of handling and storing debris--usually included in the past as part of downstream flood damage--was separately calculated in the present study. This was done because such cost is not always associated with physical damage to improvements and because it is large and relatively important. Costs of handling or storing the annual volume of debris resulting from erosion were calculated on the basis of its probable downstream distribution as indicated by field inspection.

Damage to water supply was calculated in terms of acre feet of water lost to domestic, agriculture, or power use due to pollution or other causes during storm periods. The effects of fire on underground water supplies and on the annual volume of recoverable streamflow were NOT included in the damage estimates. To include them would require the gathering of much more data and a much more detailed analysis of individual flood events than was possible in the current project. The water supply considered was therefore restricted to that taken from stream diversions for domestic, irrigation, and power uses wherever these were inventoried, and damage was restricted to the kinds for which calculations could reasonably be made in terms of the peak discharge for each flood.

No attempt was made to evaluate loss of life or social and other intangible damages for which there are no generally accepted dollar equivalents.



## HOW TO USE THE DAMAGE TABLES

The damage estimates in the accompanying tables may be used with only slight variations of method in a number of fire control activities. Three of these activities for which there is opportunity for immediate and important application are (1) appraising damage from individual fires, (2) estimating the changes in fire damage that will result from the increased or decreased numbers or sizes of future fires expected under different intensities of protection, and (3) planning strategy and deciding priorities for action on going fires. Methods appropriate for each of these uses are outlined below.

In appraising damage from individual fires, run-off and erosion damage must be determined separately for each of the damages listed in the tables and separately for the area burned within each Damage Appraisal Unit<sup>1/</sup>. When a single fire burns in more than one unit the totals for each unit must therefore be added together to determine the total watershed damage for the fire. Direct fire damages must be added to this figure to obtain total fire damage. The following steps are necessary to compute watershed damage within each Appraisal Unit:

1. Determine the total area burned in the Appraisal Unit.
2. Determine the total area burned in each slope zone.
3. Turn to the damage table for the unit concerned.
4. On the top portion of the table under each of the upstream slope zones burned - (1), (2), (4), and (5) - read dollars damage per acre opposite the size class in which the area burned in each zone<sup>2/</sup> falls.
5. Multiply the dollars per acre read in each zone column by the number of acres burned in that zone.
6. On the bottom portion of the table under each of the columns headed "other damages" read dollars per acre opposite the size class in which the total area burned in the appraisal unit<sup>2/</sup> falls.

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1/ Damage Appraisal Units and slope zones are indicated on sketch maps that follow the tables.

2/ Note that the maximum area, in acres, to be used in computing damage is in some cases less than the actual area of the zone or unit. This smaller figure represents the total area in the zone or unit that will have increased run-off and erosion after fire. The remainder will not be affected by fire to an appreciable extent.





7. Multiply the dollars per acre read in each of these columns by the total acres burned in the appraisal unit.
8. Add together the dollars damage computed for the separate columns on the top and bottom portions of the table to obtain the total estimated damage for the Appraisal Unit.

If the fire burned in more than one Appraisal Unit, add the totals computed independently for each one to obtain a total for the whole fire.

In estimating the changes in fire damage that will result from changes in the numbers or sizes of future fires it is necessary to estimate damage for the individual future fires predicted. In order to apply the tables for this purpose, the number of burned acres to be assigned to each of the upstream slope zones burned must be decided for each presumed fire. Any distribution within an appraisal unit may be assumed that will suit the specific purpose at hand. It should be satisfactory in most instances of planning, however, to assume that fires on the average will be distributed among the respective zones in proportion to their relative burnable areas within the unit. The appropriate areas in acres are given in the tables for each unit and zone. Average watershed damage estimates for different sizes of fires have been computed from the tables on this basis for all damage appraisal units within the southern California study area. These are planned for distribution as a separate release.

In planning strategy and deciding priorities for action on going fires the tables should be used in the manner most appropriate for the specific problem at hand. For example: (1) where the problem of balancing suppression cost against potential damage arises in planning strategy, total watershed damage inside a tentative control line may be calculated from the tables in the same manner as if the area were burned, (2) where the problem of deciding priorities for line action on a fire involves a choice of local areas to be sacrificed to attain a particular burned area objective for the fire, comparisons should be made between the damage rates given in the tables for the particular zones and appraisal units involved; (3) where the problem is concerned with establishing priorities for action on more than one going fire--particularly where tentative control lines have not been decided--average damage rates determined from the tables as described in the preceding paragraph should usually provide an adequate measure of the relative damage potentials of the fires involved.

It should be noted that wherever used these damage estimates are directly applicable only to the specific damage appraisal units for which they were prepared. Using them as guides, however, useable estimates may be made of average damages to be expected on adjacent areas that are reasonably comparable in terrain and degree of development.



### ADDITIONAL FIRE DAMAGES

It was indicated in the beginning that a single fire may have several effects, all of which must be evaluated to secure an adequate appraisal of true fire damage. The fire damage resulting from increased run-off and erosion was selected for special treatment here because of its general importance in southern California and because it requires the application of specialized methods for its evaluation. The total of other forms of fire damage, however, may frequently surpass watershed damage in magnitude and should not be overlooked.

Among the more important forms of additional damage that should be considered in making a fire damage appraisal are:

1. Destruction of property and resources by fire.
2. Short and long period losses of recreational use.
3. Game animals and other wildlife killed.
4. Forage for wildlife and domestic animals damaged.
5. Costs of evacuation, traffic blocks, etc., during the fire.
6. Loss of revenue from damaged property and resources.
7. Rental of alternate facilities during repair or replacement of facilities damaged by fire.

These elements should be considered in estimating the probable damage from future fires as well as in making current damage appraisals.





TABLES OF EXPECTED FIRE DAMAGE FROM  
INCREASED RUN-OFF AND EROSION

San Bernardino National Forest



EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Reservoir Butte

B-1

Fire damage appraisal unit:

Unit No.

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20				0.00
21 - 40				0.05
41 - 60				0.05
61 - 100				0.10
101 - 180				0.15
181 - 300				0.25
301 - 600				0.45
601 - 1000				0.60
1001 - 1750				0.60
Over 1750				0.60
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres) 5,672
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20		0.05	0.15	
21 - 40		0.20	0.80	
41 - 60		0.30	1.35	
61 - 100		0.50	2.15	
101 - 180		0.85	3.70	
181 - 300		1.45	6.30	
301 - 600		2.70	11.70	
601 - 1000		4.85	16.20	
1001 - 1750		8.30	16.20	
1751 - 3000		10.80	16.20	
3001 - 5000		10.80	16.20	
Over 5000		10.80	16.20	
Maximum area for computing other damages	(acres)	(acres) 5,672	(acres) 5,672	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Bautista Creek

Unit No. B-2

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00		0.00	0.00
21 - 40	0.00		0.00	0.05
41 - 60	0.05		0.00	0.05
61 - 100	0.05		0.00	0.10
101 - 180	0.10		0.00	0.15
181 - 300	0.20		0.00	0.25
301 - 600	0.35		0.00	0.45
601 - 1000	0.50		0.00	0.80
1001 - 1750	0.50		0.00	1.05
Over 1750	0.50		0.00	1.05
Maximum area for computing damage on slopes	(acres) 10,148	(acres)	(acres) 4,186	(acres) 12,937
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.25	0.00
21 - 40	0.00	0.00	1.05	0.00
41 - 60	0.00	0.00	1.85	0.00
61 - 100	0.00	0.00	2.90	0.00
101 - 180	0.00	0.00	5.10	0.00
181 - 300	0.00	0.00	8.70	0.00
301 - 600	0.00	0.05	16.00	0.00
601 - 1000	0.00	0.10	29.00	0.00
1001 - 1750	0.00	0.20	36.90	0.05
1751 - 3000	0.00	0.40	36.90	0.05
3001 - 5000	0.05	0.75	36.90	0.05
5001 - 9000	0.05	1.65	36.90	0.05
9001 - 15,000	0.15	3.20	36.90	0.05
15,001 - 25,000	0.20	5.60	36.90	0.05
25,001 - 50,000	0.30	7.80	36.90	0.05
Over 50,000				
Maximum area for computing other damages	(acres) 27,271	(acres) 27,271	(acres) 27,271	(acres) 27,271

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Hemet Valley

Unit No. B-3

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00			0.00
21 - 40	0.00			0.00
41 - 60	0.00			0.00
61 - 100	0.05			0.00
101 - 180	0.05			0.05
181 - 300	0.10			0.05
301 - 600	0.20			0.10
601 - 1000	0.40			0.15
1001 - 1750	0.50			0.25
Over 1750	0.50			0.30
Maximum area for computing damage on slopes	(acres) 8,839	(acres)	(acres)	(acres) 20,170
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00		0.20	
21 - 40	0.00		0.85	
41 - 60	0.00		1.45	
61 - 100	0.00		2.25	
101 - 180	0.00		3.90	
181 - 300	0.00		6.70	
301 - 600	0.00		12.40	
601 - 1000	0.00		22.50	
1001 - 1750	0.00		38.40	
1751 - 3000	0.00		50.00	
3001 - 5000	0.00		50.00	
5001 - 9000	0.00		50.00	
9001 - 15,000	0.05		50.00	
15,001 - 25,000	0.05		50.00	
25,001 - 50,000	0.10		50.00	
Over 50,000				
Maximum area for computing other damages	(acres) 29,009	(acres)	(acres) 29,009	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: San Jacinto River

Unit No. B-4

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00		0.00	0.05
21 - 40	0.00		0.05	0.25
41 - 60	0.05		0.10	0.45
61 - 100	0.05		0.15	0.75
101 - 180	0.10		0.20	1.25
181 - 300	0.20		0.40	2.15
301 - 600	0.35		0.70	4.00
601 - 1000	0.60		0.95	7.20
1001 - 1750	0.75		0.95	9.20
Over 1750	0.75		0.95	9.20
Maximum area for computing damage on slopes	(acres) 13,414	(acres)	(acres) 8,646	(acres) 15,115
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.20	0.00
21 - 40	0.00	0.00	1.00	0.00
41 - 60	0.00	0.00	1.70	0.00
61 - 100	0.00	0.00	2.65	0.05
101 - 180	0.00	0.00	4.60	0.05
181 - 300	0.00	0.00	7.90	0.10
301 - 600	0.00	0.00	14.70	0.15
601 - 1000	0.00	0.05	26.50	0.30
1001 - 1750	0.00	0.10	45.20	0.50
1751 - 3000	0.05	0.20	59.00	0.65
3001 - 5000	0.05	0.35	59.00	0.65
5001 - 9000	0.10	0.80	59.00	0.65
9001 - 15,000	0.20	1.60	59.00	0.65
15,001 - 25,000	0.40	2.95	59.00	0.65
25,001 - 50,000	0.80	5.60	59.00	0.65
Over 50,000				
Maximum area for computing other damages	(acres) 37,175	(acres) 37,175	(acres) 37,175	(acres) 37,175

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Indian Creek

Unit No. B-5

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00			0.00
21 - 40	0.05			0.00
41 - 60	0.10			0.05
61 - 100	0.10			0.05
101 - 180	0.20			0.10
181 - 300	0.35			0.20
301 - 600	0.70			0.35
601 - 1000	1.25			0.60
1001 - 1750	1.55			1.05
Over 1750	1.55			1.35
Maximum area for computing damage on slopes	(acres) 7,296	(acres)	(acres)	(acres) 11,030
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.15	0.00
21 - 40	0.00	0.00	0.60	0.00
41 - 60	0.00	0.00	1.00	0.00
61 - 100	0.00	0.00	1.60	0.00
101 - 180	0.00	0.00	2.80	0.00
181 - 300	0.00	0.00	4.80	0.00
301 - 600	0.00	0.00	8.90	0.05
601 - 1000	0.00	0.05	16.00	0.05
1001 - 1750	0.00	0.05	27.40	0.10
1751 - 3000	0.05	0.10	35.70	0.10
3001 - 5000	0.05	0.20	35.70	0.10
5001 - 9000	0.10	0.35	35.70	0.10
9001 - 15,000	0.20	0.60	35.70	0.10
Over 15,000	0.30	0.85	35.70	0.10
Maximum area for computing other damages	(acres) 16,720	(acres) 16,720	(acres) 16,720	(acres) 16,720

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

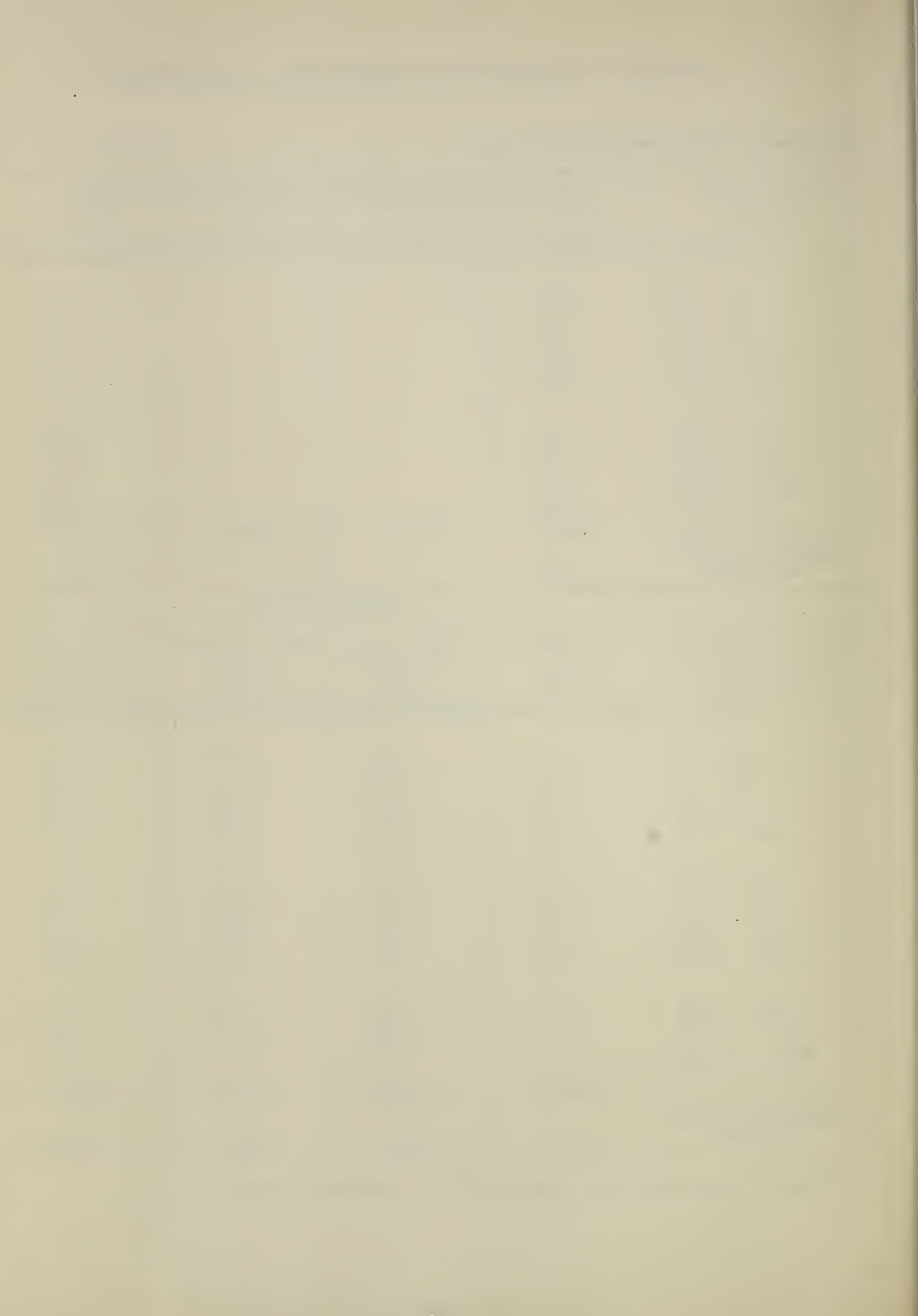
Fire damage appraisal unit: Poppet Creek

Unit No. B-6

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.05			0.00
21 - 40	0.20			0.05
41 - 60	0.35			0.05
61 - 100	0.50			0.10
101 - 180	0.90			0.15
181 - 300	1.55			0.30
301 - 600	2.90			0.55
601 - 1000	4.00			0.95
1001 - 1750	4.00			1.25
Over 1750	4.00			1.25
Maximum area for computing damage on slopes	(acres) 4,192	(acres)	(acres)	(acres) 5,141
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.20	0.00
21 - 40	0.00	0.00	0.90	0.00
41 - 60	0.00	0.00	1.55	0.00
61 - 100	0.00	0.00	2.45	0.00
101 - 180	0.00	0.00	4.25	0.00
181 - 300	0.00	0.00	7.30	0.05
301 - 600	0.00	0.00	13.60	0.10
601 - 1000	0.00	0.05	24.50	0.15
1001 - 1750	0.00	0.10	31.10	0.20
1751 - 3000	0.05	0.20	31.10	0.20
3001 - 5000	0.05	0.35	31.10	0.20
5001 - 9000	0.10	0.60	31.10	0.20
9001 - 15,000	0.15	0.85	31.10	0.20
Over 15,000				
Maximum area for computing other damages	(acres) 9,333	(acres) 9,333	(acres) 9,333	(acres) 9,333

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





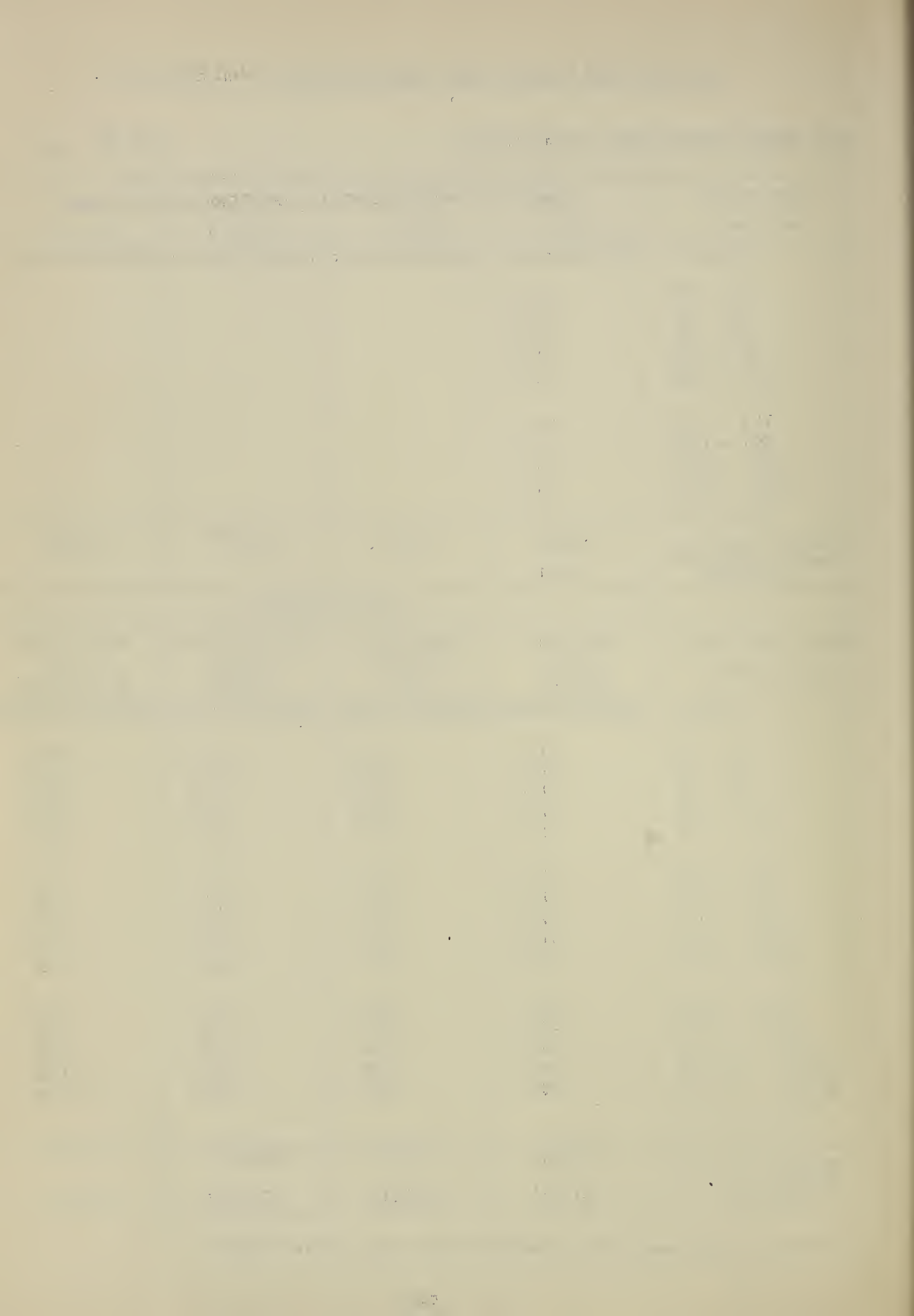
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Palm Canyon

Unit No. B-7

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00			
21 - 40	0.00			
41 - 60	0.00			
61 - 100	0.00			
101 - 180	0.00			
181 - 300	0.00			
301 - 600	0.00			
601 - 1000	0.00			
1001 - 1750	0.05			
Over 1750	0.05			
Maximum area for computing damage on slopes	(acres) 38,416	(acres)	(acres)	(acres)
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.00	0.00	0.00
21 - 40	0.00	0.00	0.00	0.00
41 - 60	0.00	0.00	0.00	0.00
61 - 100	0.00	0.00	0.00	0.00
101 - 180	0.00	0.00	0.05	0.00
181 - 300	0.00	0.00	0.05	0.00
301 - 600	0.00	0.00	0.10	0.05
601 - 1000	0.00	0.00	0.15	0.10
1001 - 1750	0.00	0.00	0.25	0.15
1751 - 3000	0.00	0.05	0.45	0.25
3001 - 5000	0.00	0.05	0.75	0.30
5001 - 9000	0.00	0.15	0.95	0.30
9001 - 15,000	0.00	0.30	0.95	0.30
15,001 - 25,000	0.00	0.55	0.95	0.30
25,001 - 50,000	0.05	1.10	0.95	0.30
Over 50,000				
Maximum area for computing other damages	(acres) 38,416	(acres) 38,416	(acres) 38,416	(acres) 38,416

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





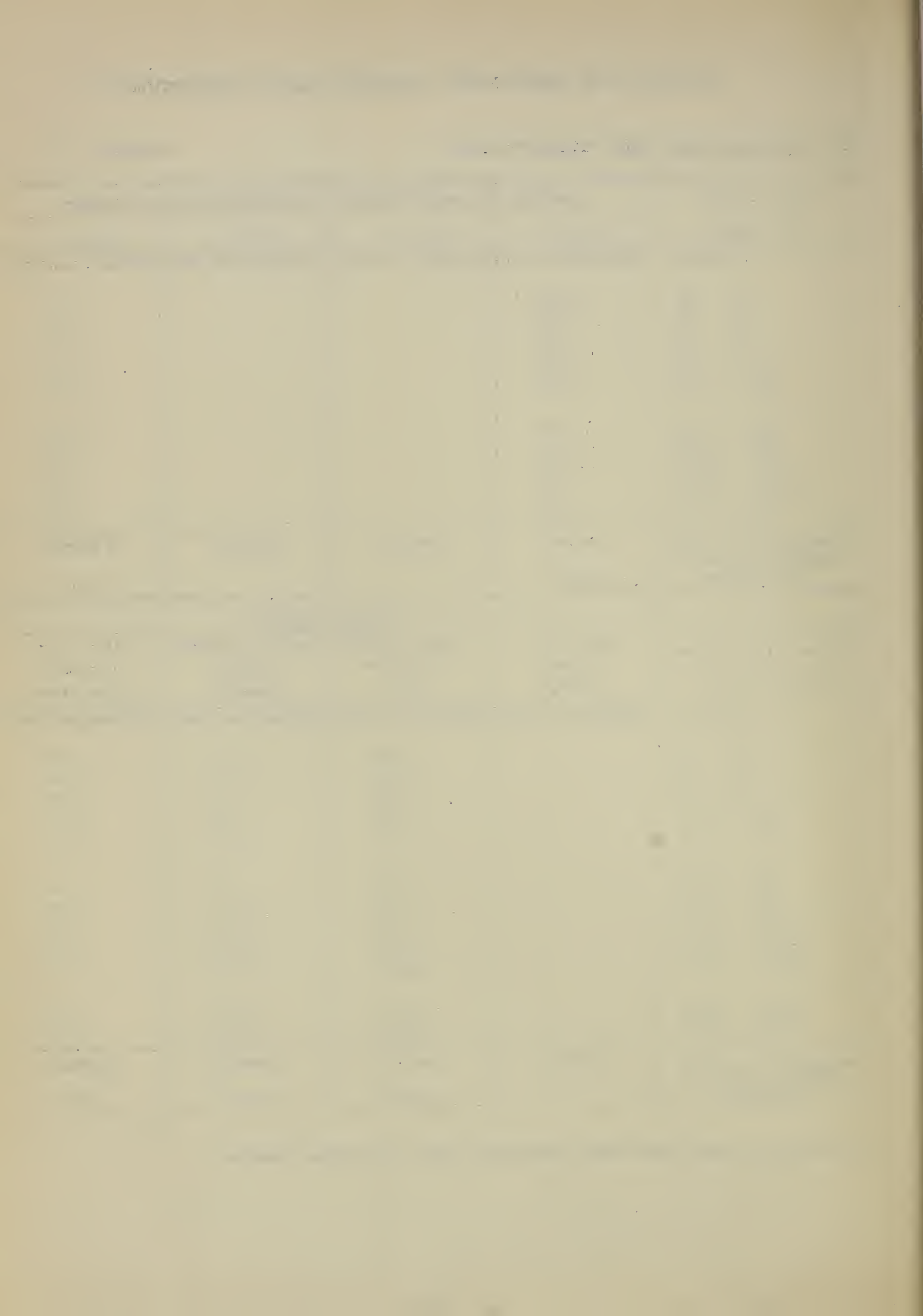
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Tahquitz Creek

Unit No. B-8

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00			0.00
21 - 40	0.00			0.00
41 - 60	0.00			0.00
61 - 100	0.00			0.00
101 - 180	0.00			0.00
181 - 300	0.00			0.05
301 - 600	0.00			0.05
601 - 1000	0.00			0.10
1001 - 1750	0.05			0.10
Over 1750	0.05			0.10
Maximum area for computing damage on slopes	(acres) 3,812	(acres)	(acres)	(acres) 2,216
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20		0.00	0.15	0.00
21 - 40		0.30	0.70	0.05
41 - 60		0.50	1.20	0.05
61 - 100		0.75	1.90	0.10
101 - 180		1.35	3.30	0.15
181 - 300		2.30	5.60	0.20
301 - 600		4.20	10.40	0.40
601 - 1000		7.60	18.90	0.55
1001 - 1750		13.00	24.00	0.55
1751 - 3000		22.50	24.00	0.55
3001 - 5000		29.10	24.00	0.55
Over 5000		29.10	24.00	0.55
Maximum area for computing other damages	(acres)	(acres) 6,028	(acres) 6,028	(acres) 6,028

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Blaisdell Canyon

Unit No. B-9

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00			
21 - 40	0.00			
41 - 60	0.00			
61 - 100	0.00			
101 - 180	0.00			
181 - 300	0.00			
301 - 600	0.00			
601 - 1000	0.00			
1001 - 1750	0.00			
Over 1750	0.00			
Maximum area for computing damage on slopes	(acres) 2,020	(acres)	(acres)	(acres)
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.00	0.00	
21 - 40		0.00	0.00	
41 - 60		0.00	0.00	
61 - 100		0.00	0.00	
101 - 180		0.00	0.00	
181 - 300		0.05	0.05	
301 - 600		0.05	0.05	
601 - 1000		0.10	0.10	
1001 - 1750		0.15	0.10	
Over 1750		0.15	0.10	
Maximum area for computing other damages	(acres)	(acres) 2,020	(acres) 2,020	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

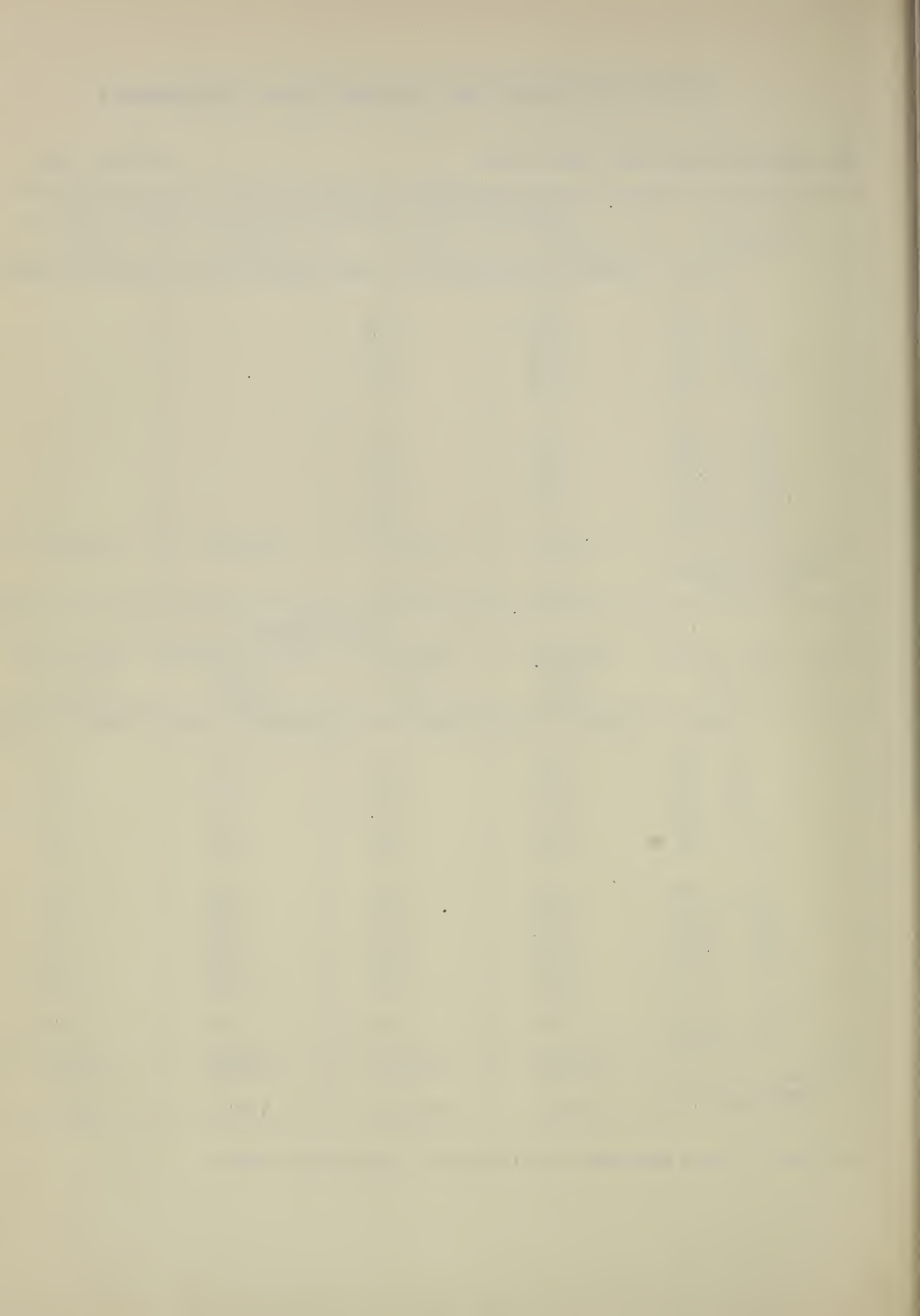
Fire damage appraisal unit: Snow Creek

Unit No. B-10

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.00		
21 - 40	0.00	0.00		
41 - 60	0.00	0.00		
61 - 100	0.00	0.00		
101 - 180	0.00	0.00		
181 - 300	0.00	0.00		
301 - 600	0.00	0.00		
601 - 1000	0.00	0.00		
1001 - 1750	0.00	0.00		
Over 1750		0.00		
Maximum area for computing damage on slopes	(acres) 1,709	(acres) 3,058	(acres)	(acres)
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.00	0.00
21 - 40	0.00	0.00	0.05	0.00
41 - 60	0.00	0.00	0.10	0.05
61 - 100	0.00	0.00	0.10	0.05
101 - 180	0.00	0.00	0.20	0.05
181 - 300	0.00	0.05	0.35	0.15
301 - 600	0.05	0.05	0.65	0.15
601 - 1000	0.05	0.10	1.20	0.15
1001 - 1750	0.10	0.15	1.50	0.15
1751 - 3000	0.15	0.30	1.50	0.15
3001 - 5000	0.30	0.60	1.50	0.15
Over 5000				
Maximum area for computing other damages	(acres) 4,767	(acres) 4,767	(acres) 4,767	(acres) 4,767

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.







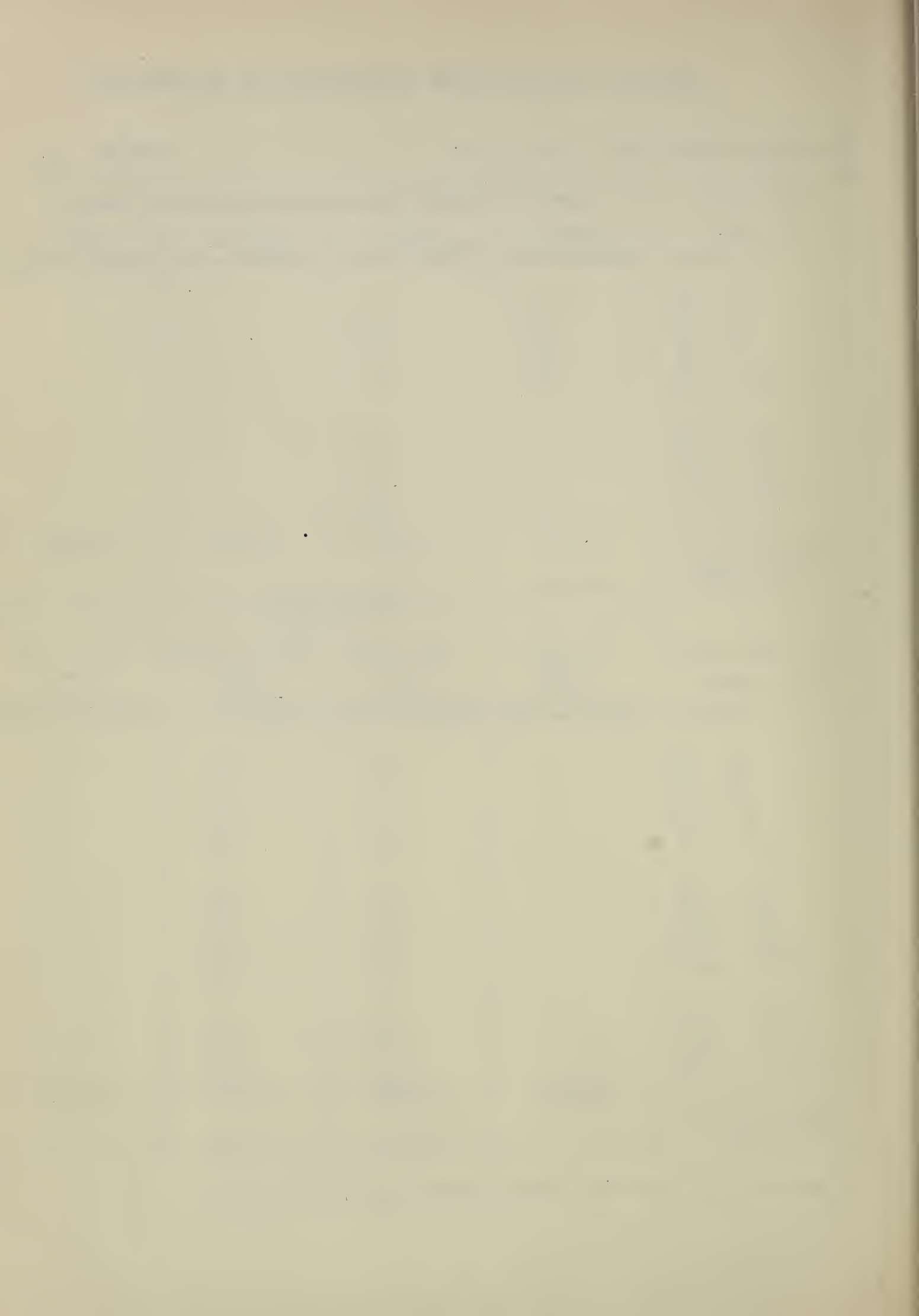
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Cabezon Peak

Unit No. B-11

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.00		
21 - 40	0.05	0.05		
41 - 60	0.05	0.05		
61 - 100	0.05	0.10		
101 - 180	0.10	0.15		
181 - 300	0.20	0.25		
301 - 600	0.40	0.45		
601 - 1000	0.70	0.60		
1001 - 1750	0.90	0.60		
Over 1750	0.90	0.60		
Maximum area for computing damage on slopes	(acres) 10,788	(acres) 8,990	(acres)	(acres)
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20		0.00	0.00	
21 - 40		0.00	0.10	
41 - 60		0.00	0.15	
61 - 100		0.00	0.25	
101 - 180		0.05	0.40	
181 - 300		0.05	0.70	
301 - 600		0.10	1.25	
601 - 1000		0.15	2.30	
1001 - 1750		0.25	2.90	
1751 - 3000		0.45	2.90	
3001 - 5000		0.80	2.90	
5001 - 9000		1.35	2.90	
9001 - 15,000		1.75	2.90	
Over 15,000		3.00	2.90	
Maximum area for computing other damages	(acres)	(acres) 19,778	(acres) 19,778	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



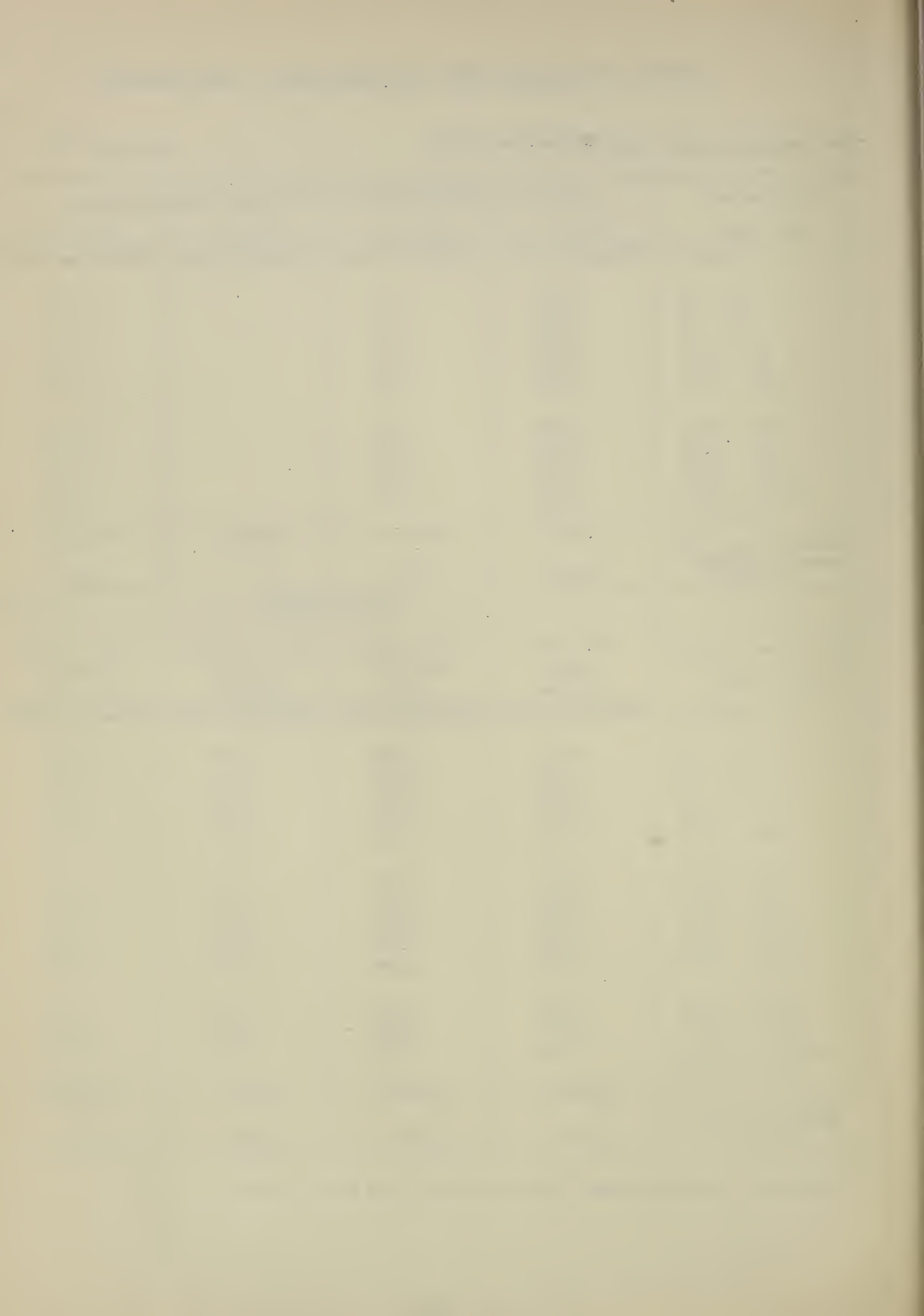
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Whitewater River

Unit No. B-12

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.00		0.00
21 - 40	0.00	0.00		0.00
41 - 60	0.00	0.00		0.00
61 - 100	0.00	0.00		0.00
101 - 180	0.00	0.00		0.05
181 - 300	0.00	0.00		0.05
301 - 600	0.05	0.00		0.10
601 - 1000	0.05	0.00		0.15
1001 - 1750	0.10	0.00		0.20
Over 1750	0.10			0.20
Maximum area for computing damage on slopes	(acres) 8,053	(acres) 1,552	(acres) 0	(acres) 4,260
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.00	0.00
21 - 40	0.00	0.00	0.10	0.00
41 - 60	0.00	0.00	0.15	0.05
61 - 100	0.00	0.00	0.20	0.05
101 - 180	0.00	0.05	0.35	0.10
181 - 300	0.00	0.05	0.65	0.20
301 - 600	0.00	0.10	1.15	0.35
601 - 1000	0.05	0.20	2.10	0.60
1001 - 1750	0.05	0.40	3.60	1.05
1751 - 3000	0.10	0.85	4.75	1.35
3001 - 5000	0.25	1.65	4.75	1.35
5001 - 9000	0.45	3.20	4.75	1.35
9001 - 15,000	1.00	6.70	4.75	1.35
Over 15,000				
Maximum area for computing other damages	(acres) 13,865	(acres) 13,865	(acres) 13,865	(acres) 13,865

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

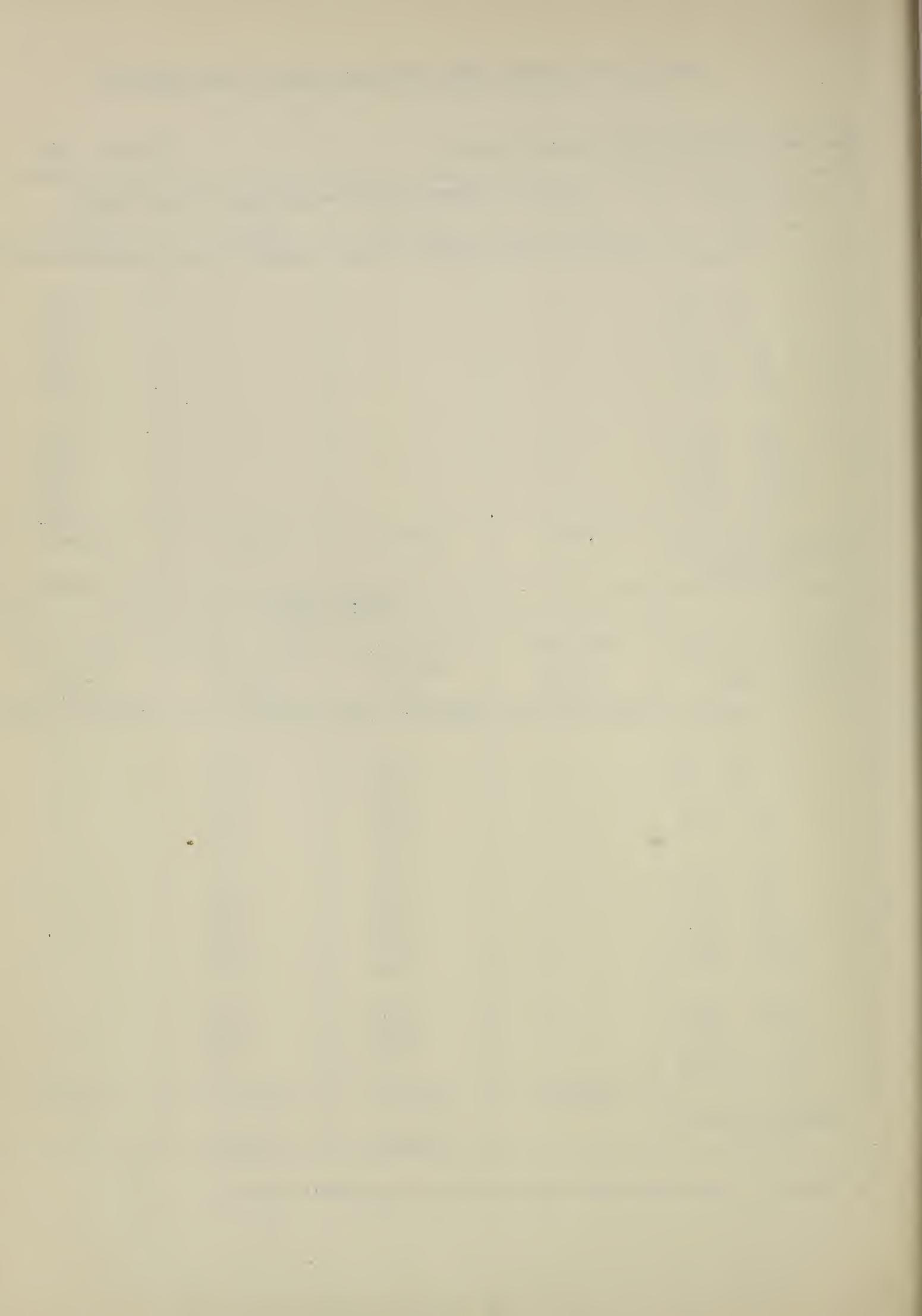
Fire damage appraisal unit: Stubby Canyon

Unit No. B-13

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20				0.00
21 - 40				0.00
41 - 60				0.00
61 - 100				0.00
101 - 180				0.00
181 - 300				0.00
301 - 600				0.00
601 - 1000				0.05
1001 - 1750				0.05
Over 1750				0.05
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres) 9,443
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20		0.00	0.00	
21 - 40		0.00	0.05	
41 - 60		0.00	0.10	
61 - 100		0.15	0.15	
101 - 180		0.25	0.20	
181 - 300		0.40	0.35	
301 - 600		0.70	0.70	
601 - 1000		1.30	1.25	
1001 - 1750		2.25	1.60	
1751 - 3000		3.85	1.60	
3001 - 5000		6.50	1.60	
5001 - 9000		8.30	1.60	
9001 - 15,000		8.30	1.60	
Over 15,000				
Maximum area for computing other damages	(acres)	(acres) 9,443	(acres) 9,443	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.







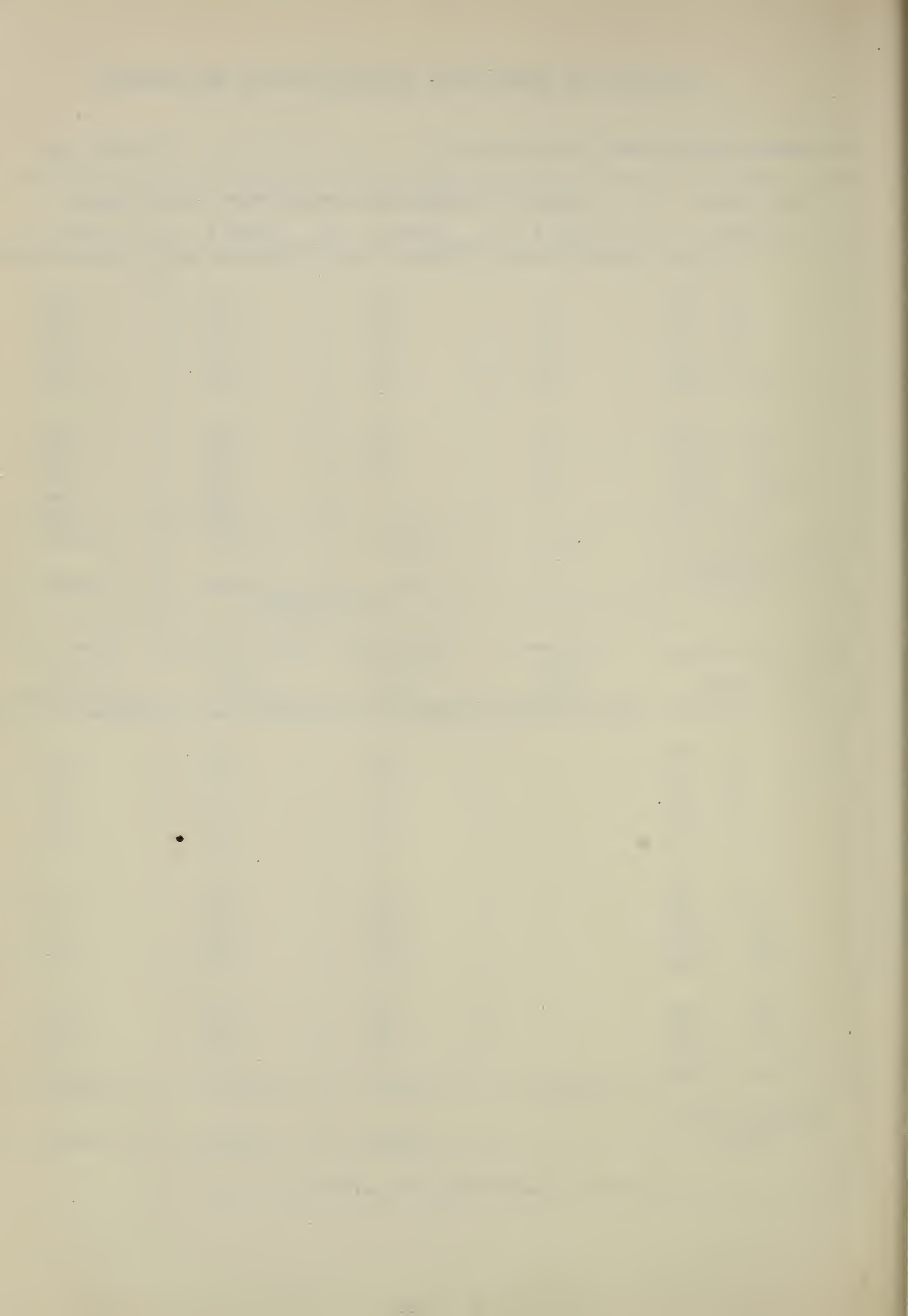
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Millard Canyon

Unit No. B-14

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.05	0.00	0.00
21 - 40	0.05	0.15	0.05	0.00
41 - 60	0.05	0.30	0.10	0.05
61 - 100	0.10	0.45	0.15	0.05
101 - 180	0.15	0.80	0.30	0.10
181 - 300	0.20	1.05	0.50	0.20
301 - 600	0.20	1.05	0.90	0.35
601 - 1000	0.20	1.05	1.20	0.45
1001 - 1750	0.20		1.20	0.45
Over 1750			1.20	0.45
Maximum area for computing damage on slopes	(acres) 1,146	(acres) 646	(acres) 3,110	(acres) 5,020
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.00	0.05	0.00
21 - 40		0.00	0.25	0.00
41 - 60		0.00	0.45	0.00
61 - 100		0.00	0.75	0.05
101 - 180		0.05	1.25	0.05
181 - 300		0.05	2.15	0.10
301 - 600		0.10	4.00	0.20
601 - 1000		0.20	5.50	0.25
1001 - 1750		0.35	5.50	0.25
1751 - 3000		0.65	5.50	0.25
3001 - 5000		1.05	5.50	0.25
5001 - 9000		1.80	5.50	0.25
9001 - 15,000		2.65	5.50	0.25
Over 15,000				
Maximum area for computing other damages	(acres)	(acres) 9,222	(acres) 9,222	(acres) 9,222

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



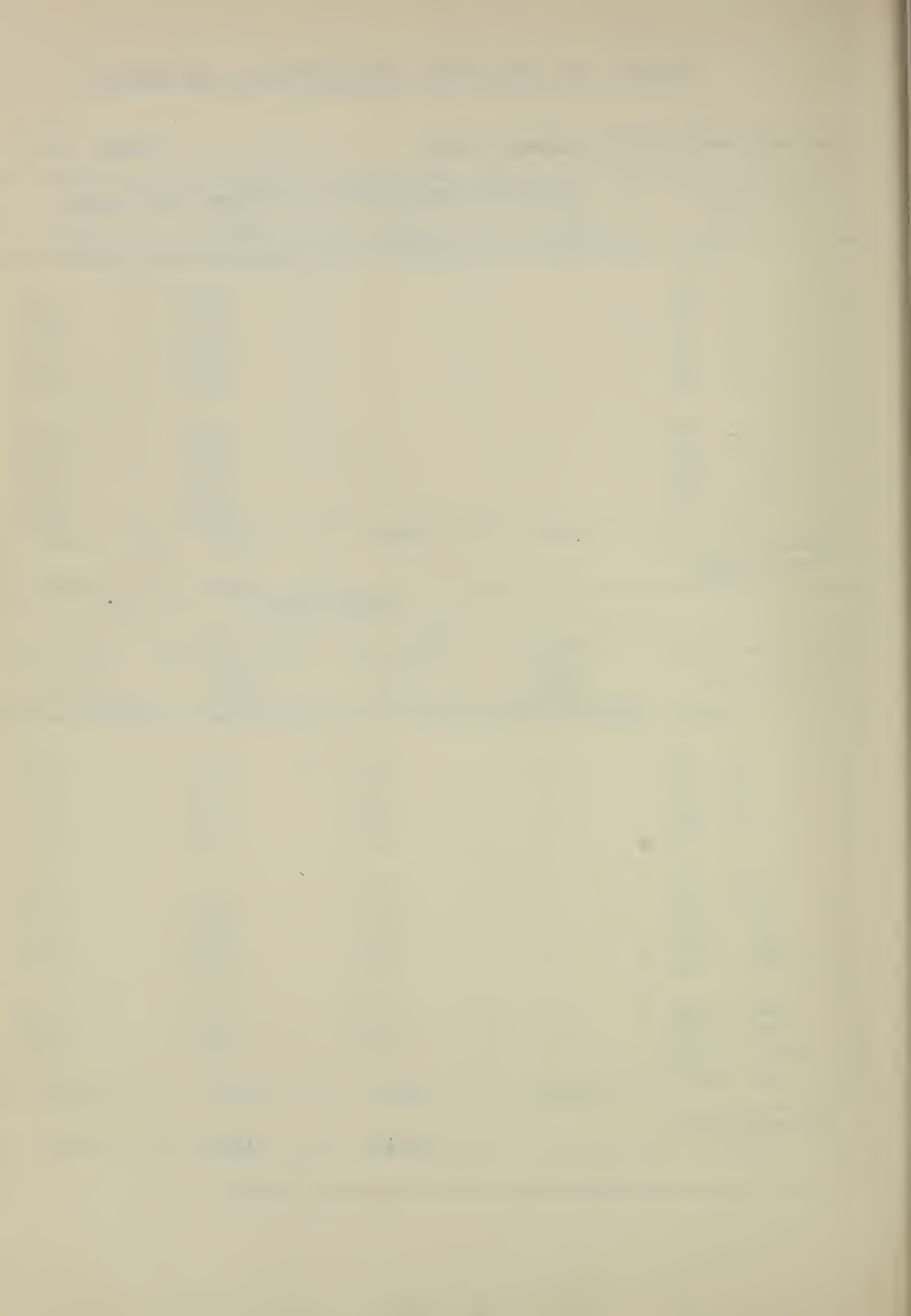
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Hathaway Creek

Unit No. B-15

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20			0.00	0.00
21 - 40			0.10	0.00
41 - 60			0.15	0.00
61 - 100			0.20	0.05
101 - 180			0.40	0.05
181 - 300			0.65	0.10
301 - 600			1.20	0.20
601 - 1000			1.70	0.30
1001 - 1750			1.70	0.40
Over 1750			1.70	0.40
Maximum area for computing damage on slopes	(acres)	(acres)	(acres) 2,841	(acres) 10,656
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20		0.00	0.05	0.00
21 - 40		0.00	0.10	0.00
41 - 60		0.00	0.20	0.00
61 - 100		0.00	0.30	0.00
101 - 180		0.05	0.55	0.00
181 - 300		0.05	0.95	0.05
301 - 600		0.10	1.80	0.05
601 - 1000		0.20	3.20	0.05
1001 - 1750		0.35	4.10	0.05
1751 - 3000		0.55	4.10	0.05
3001 - 5000		0.95	4.10	0.05
5001 - 9000		1.70	4.10	0.05
9001 - 15,000		2.20	4.10	0.05
Over 15,000				
Maximum area for computing other damages	(acres)	(acres) 13,497	(acres) 13,497	(acres) 13,497

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

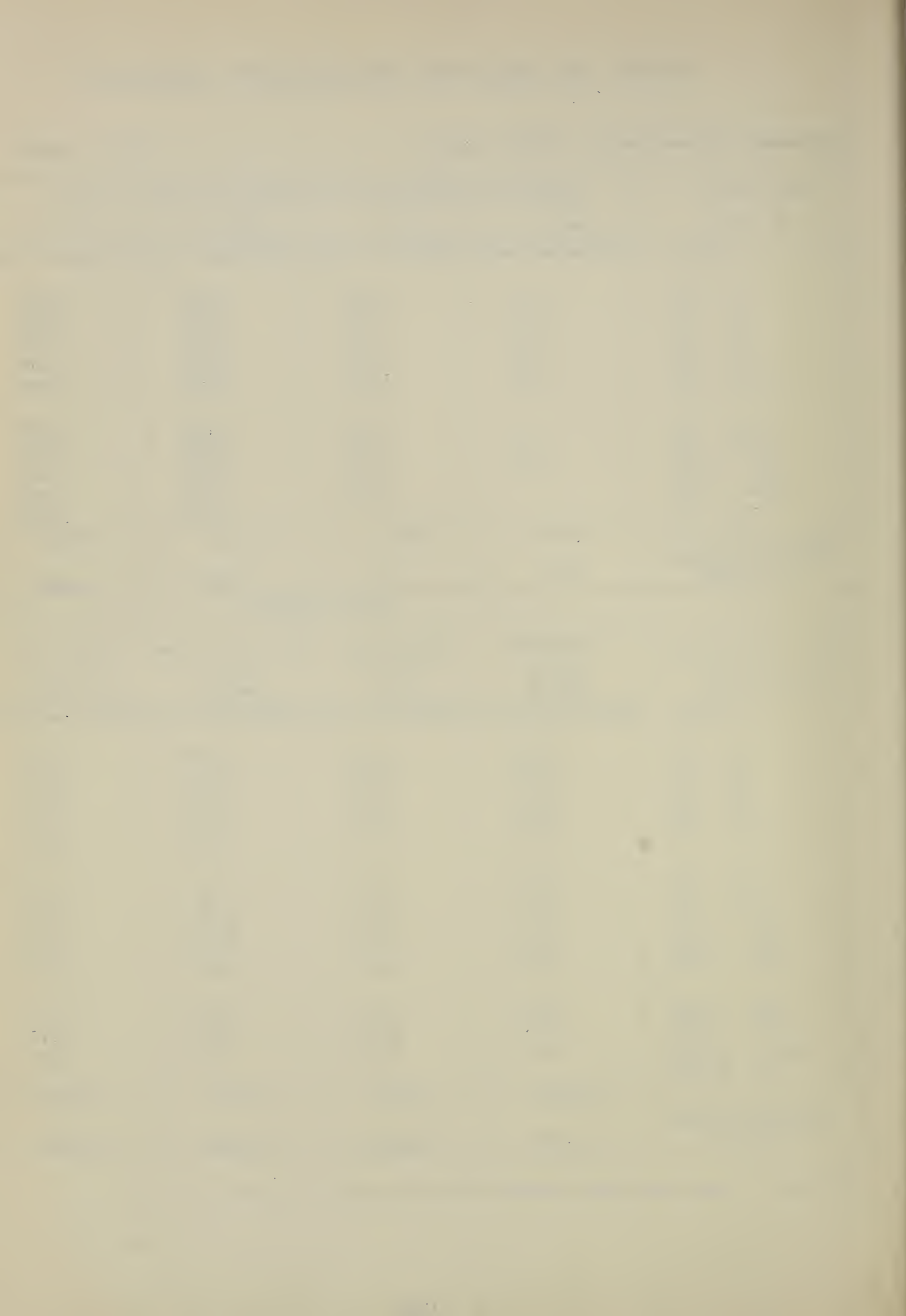
Fire damage appraisal unit: Banning Canyon

Unit No. B-16

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.15	0.20	0.00	0.00
21 - 40	0.75	0.90	0.05	0.00
41 - 60	1.30	1.55	0.10	0.05
61 - 100	1.55	2.40	0.10	0.05
101 - 180	1.55	3.05	0.20	0.10
181 - 300	1.55	3.05	0.35	0.20
301 - 600	1.55	3.05	0.65	0.35
601 - 1000	1.55	3.05	0.90	0.45
1001 - 1750		3.05	0.90	0.45
Over 1750			0.90	0.45
Maximum area for computing damage on slopes	(acres) 844	(acres) 1,146	(acres) 2,592	(acres) 6,422
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.05	0.00
21 - 40	0.00	0.00	0.30	0.05
41 - 60	0.00	0.00	0.50	0.05
61 - 100	0.00	0.00	0.75	0.10
101 - 180	0.00	0.00	1.35	0.20
181 - 300	0.00	0.05	2.30	0.35
301 - 600	0.05	0.10	4.25	0.60
601 - 1000	0.10	0.20	5.80	1.10
1001 - 1750	0.15	0.40	5.80	1.40
1751 - 3000	0.30	0.85	5.80	1.40
3001 - 5000	0.65	1.70	5.80	1.40
5001 - 9000	1.20	3.15	5.80	1.40
9001 - 15,000	1.95	5.10	5.80	1.40
Over 15,000				
Maximum area for computing other damages	(acres) 11,004	(acres) 11,004	(acres) 11,004	(acres) 11,004

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.







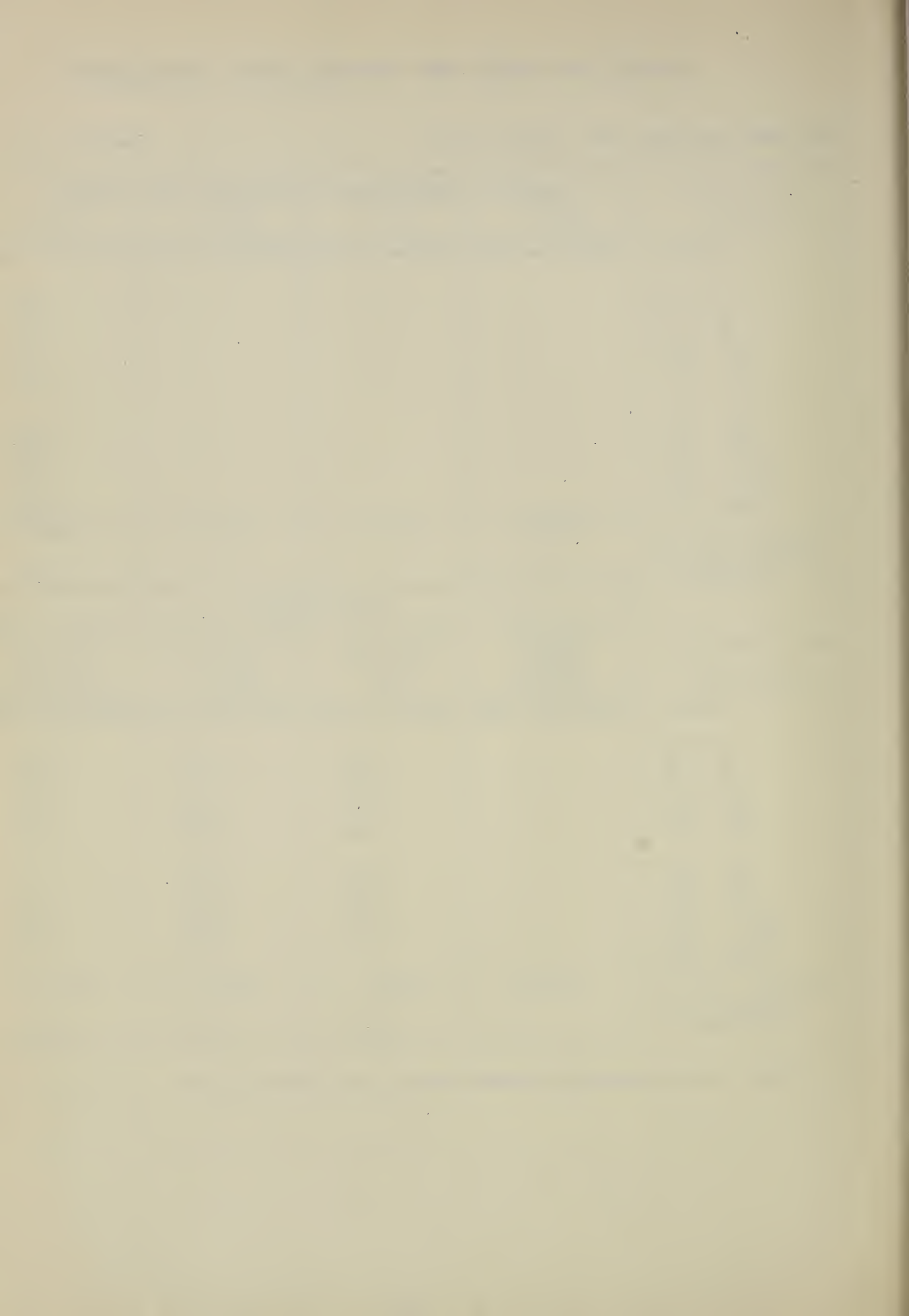
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Cherry Creek

Unit No. B-17

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.00
21 - 40				0.00
41 - 60				0.00
61 - 100				0.00
101 - 180				0.00
181 - 300				0.00
301 - 600				0.00
601 - 1000				0.00
1001 - 1750				0.00
Over 1750				0.00
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				1,498
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.10	1.00	0.05
21 - 40		0.35	4.50	0.20
41 - 60		0.60	7.70	0.35
61 - 100		0.95	12.20	0.55
101 - 180		1.65	21.20	1.00
181 - 300		2.85	36.40	1.70
301 - 600		5.20	46.50	2.15
601 - 1000		9.50	46.50	2.15
1001 - 1750		12.10	46.50	2.15
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		1,498	1,498	1,498

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



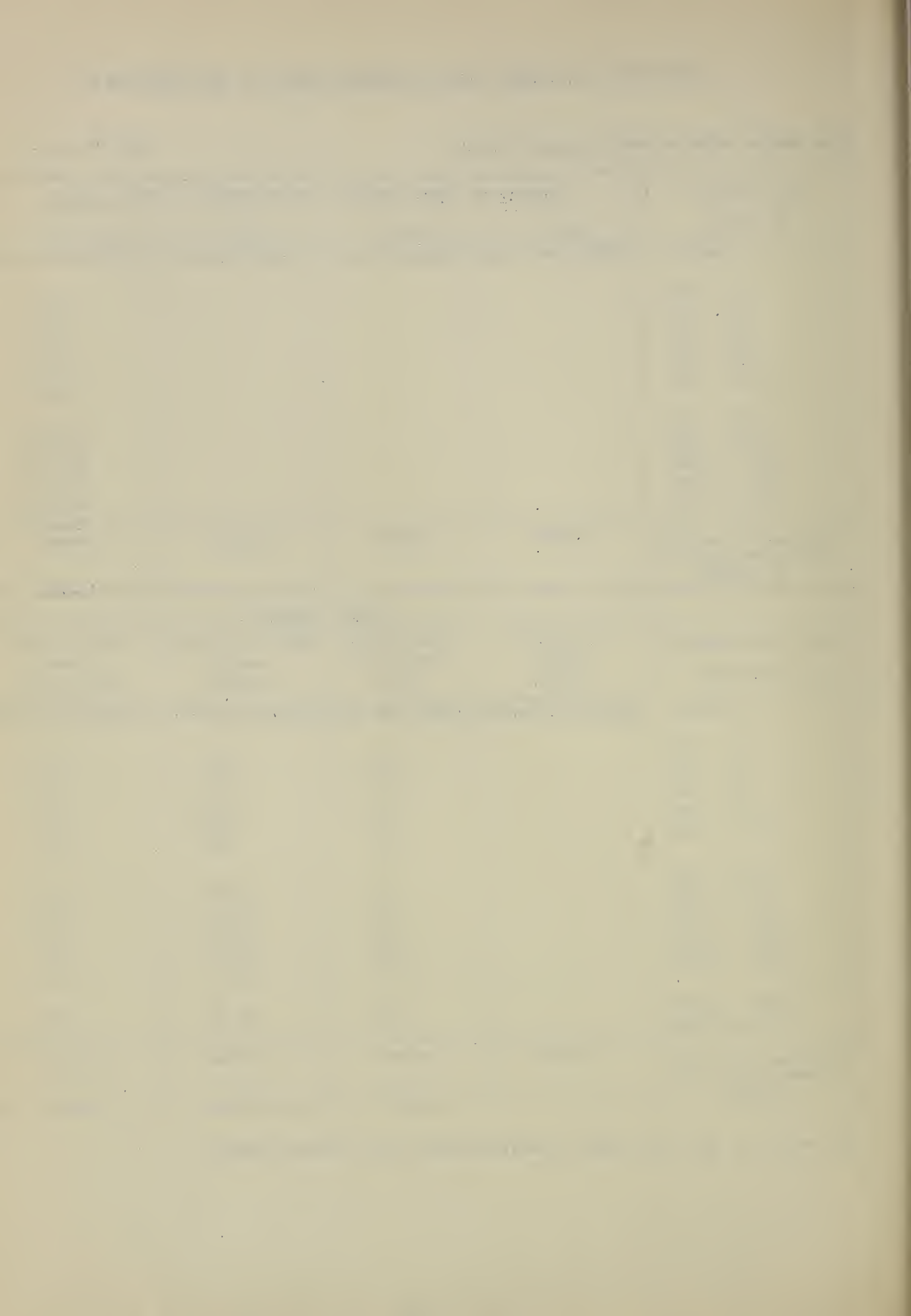
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Potato Creek

Unit No. B-18

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20				0.35
21 - 40				1.70
41 - 60				2.90
61 - 100				4.60
101 - 180				8.00
181 - 300				13.70
301 - 600				25.40
601 - 1000				35.00
1001 - 1750				35.00
Over 1750				35.00
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				4,251
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20		0.00	0.35	0.00
21 - 40		0.05	1.70	0.00
41 - 60		0.10	2.90	0.05
61 - 100		0.15	4.60	0.05
101 - 180		0.20	7.90	0.10
181 - 300		0.40	13.60	0.15
301 - 600		0.70	25.10	0.25
601 - 1000		1.30	34.70	0.35
1001 - 1750		2.20	34.70	0.35
1751 - 3000		3.75	34.70	0.35
3001 - 5000		4.85	34.70	0.35
Over 5000				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		4,251	4,251	4,251

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



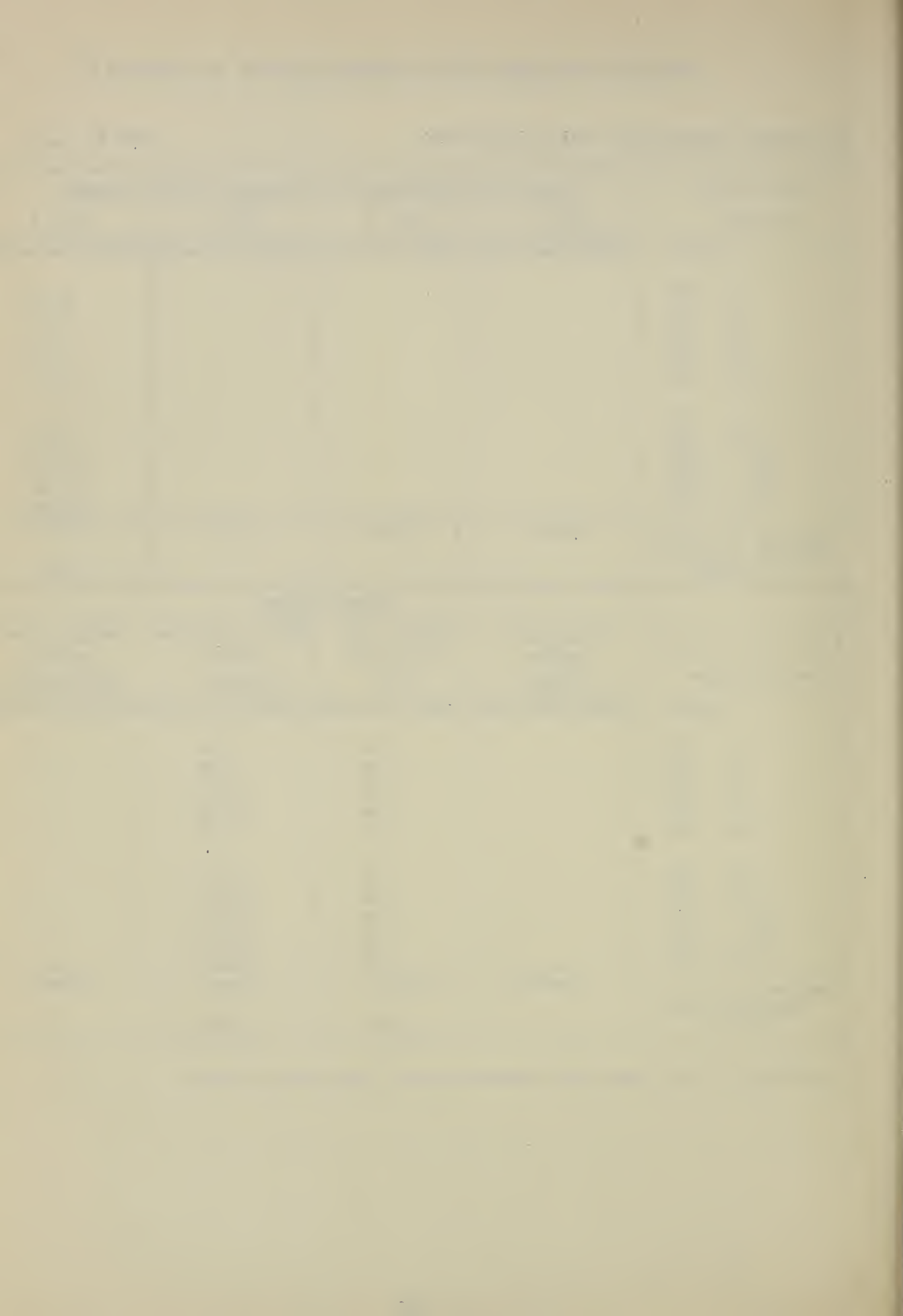
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Mill Creek Wash

Unit No. B-19

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.15
21 - 40				0.65
41 - 60				1.10
61 - 100				1.75
101 - 180				3.05
181 - 300				5.20
301 - 600				9.70
601 - 1000				13.40
1001 - 1750				13.40
Over 1750				13.40
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				2,670
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.05	1.80	
21 - 40		0.15	8.20	
41 - 60		0.25	14.20	
61 - 100		0.40	22.40	
101 - 180		0.65	38.80	
181 - 300		1.15	66.50	
301 - 600		2.15	123.00	
601 - 1000		3.85	170.00	
1001 - 1750		4.90	170.00	
Over 1750		4.90	170.00	
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		2,670	2,670	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Mill Creek

Unit No. B-20

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.05	0.00	0.05	0.00
21 - 40	0.15	0.05	0.15	0.10
41 - 60	0.30	0.05	0.30	0.15
61 - 100	0.45	0.10	0.45	0.25
101 - 180	0.80	0.15	0.80	0.50
181 - 300	1.40	0.25	1.35	0.80
301 - 600	2.60	0.35	2.55	1.50
601 - 1000	3.60	0.35	3.50	2.75
1001 - 1750	3.60	0.35	3.50	3.50
Over 1750		0.35	3.50	3.50
Maximum area for computing damage on slopes	(acres) 1,304	(acres) 1,842	(acres) 6,693	(acres) 5,256
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.40	0.00
21 - 40	0.00	0.00	1.85	0.10
41 - 60	0.00	0.00	3.15	0.15
61 - 100	0.00	0.00	5.00	0.25
101 - 180	0.05	0.00	8.60	0.40
181 - 300	0.10	0.05	14.80	0.70
301 - 600	0.20	0.10	27.40	1.35
601 - 1000	0.40	0.20	49.50	2.40
1001 - 1750	0.80	0.40	63.00	4.10
1751 - 3000	1.55	0.80	63.00	5.40
3001 - 5000	3.30	1.65	63.00	5.40
5001 - 9000	6.40	3.25	63.00	5.40
9001 - 15,000	11.40	5.80	63.00	5.40
Over 15,000	14.70	7.50	63.00	5.40
Maximum area for computing other damages	(acres) 15,155	(acres) 15,155	(acres) 15,155	(acres) 15,155

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



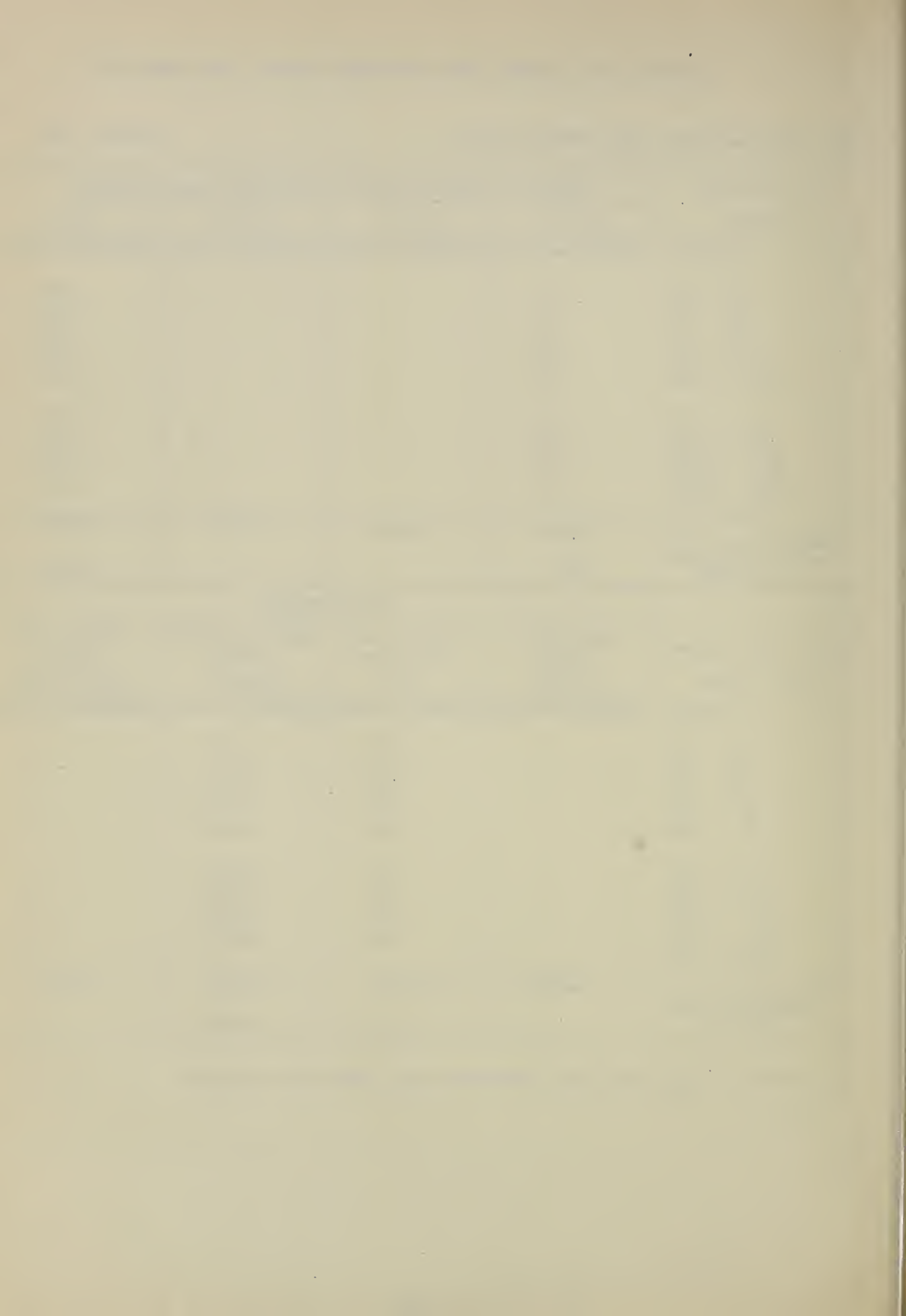
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Morton Canyon

Unit No. B-21

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00			0.00
21 - 40	0.00			0.00
41 - 60	0.00			0.05
61 - 100	0.00			0.05
101 - 180	0.00			0.10
181 - 300	0.00			0.10
301 - 600	0.00			0.10
601 - 1000	0.00			0.10
1001 - 1750	0.00			0.10
Over 1750				
Maximum area for computing damage on slopes	(acres) 550	(acres)	(acres)	(acres) 1,024
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.00	4.50	
21 - 40		0.10	20.80	
41 - 60		0.20	35.20	
61 - 100		0.30	56.50	
101 - 180		0.50	98.50	
181 - 300		0.85	129.00	
301 - 600		1.60	129.00	
601 - 1000		2.90	129.00	
1001 - 1750		5.80	129.00	
Over 1750				
Maximum area for computing other damages	(acres)	(acres) 1,574	(acres) 1,574	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

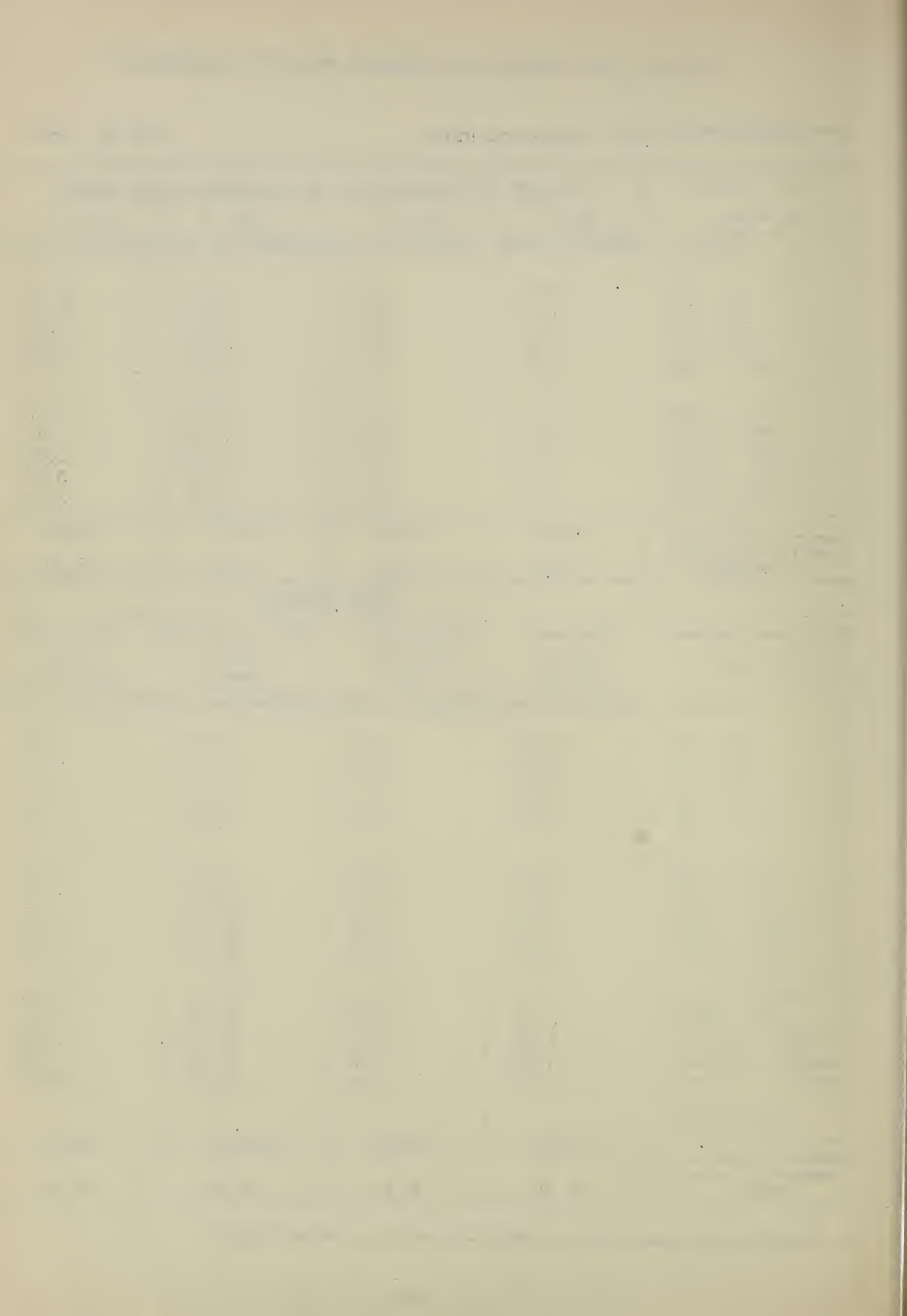
Fire damage appraisal unit: Santa Ana River

Unit No. B-22

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.10	0.00	0.00
21 - 40	0.05	0.40	0.05	0.10
41 - 60	0.10	0.65	0.15	0.15
61 - 100	0.15	1.05	0.20	0.25
101 - 180	0.20	1.85	0.35	0.45
181 - 300	0.40	3.15	0.60	0.75
301 - 600	0.70	5.80	1.10	1.40
601 - 1000	1.30	8.00	1.55	2.50
1001 - 1750	1.65	8.00	1.55	3.20
Over 1750	1.65	8.00	1.55	3.20
Maximum area for computing damage on slopes	(acres) 7,935	(acres) 11,640	(acres) 12,884	(acres) 16,527
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.15	0.00
21 - 40	0.00	0.00	0.75	0.10
41 - 60	0.00	0.00	1.30	0.15
61 - 100	0.00	0.00	2.05	0.20
101 - 180	0.00	0.00	3.55	0.40
181 - 300	0.00	0.00	6.10	0.65
301 - 600	0.00	0.00	11.30	1.25
601 - 1000	0.05	0.00	20.40	2.25
1001 - 1750	0.05	0.05	34.90	3.80
1751 - 3000	0.10	0.05	45.50	6.60
3001 - 5000	0.20	0.15	45.50	8.50
5001 - 9000	0.45	0.35	45.50	8.50
9001 - 15,000	0.90	0.70	45.50	8.50
15,001 - 25,000	1.80	1.35	45.50	8.50
25,001 - 50,000	4.60	3.45	45.50	8.50
Over 50,000				
Maximum area for computing other damages	(acres) 48,986	(acres) 48,986	(acres) 48,986	(acres) 48,986

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.







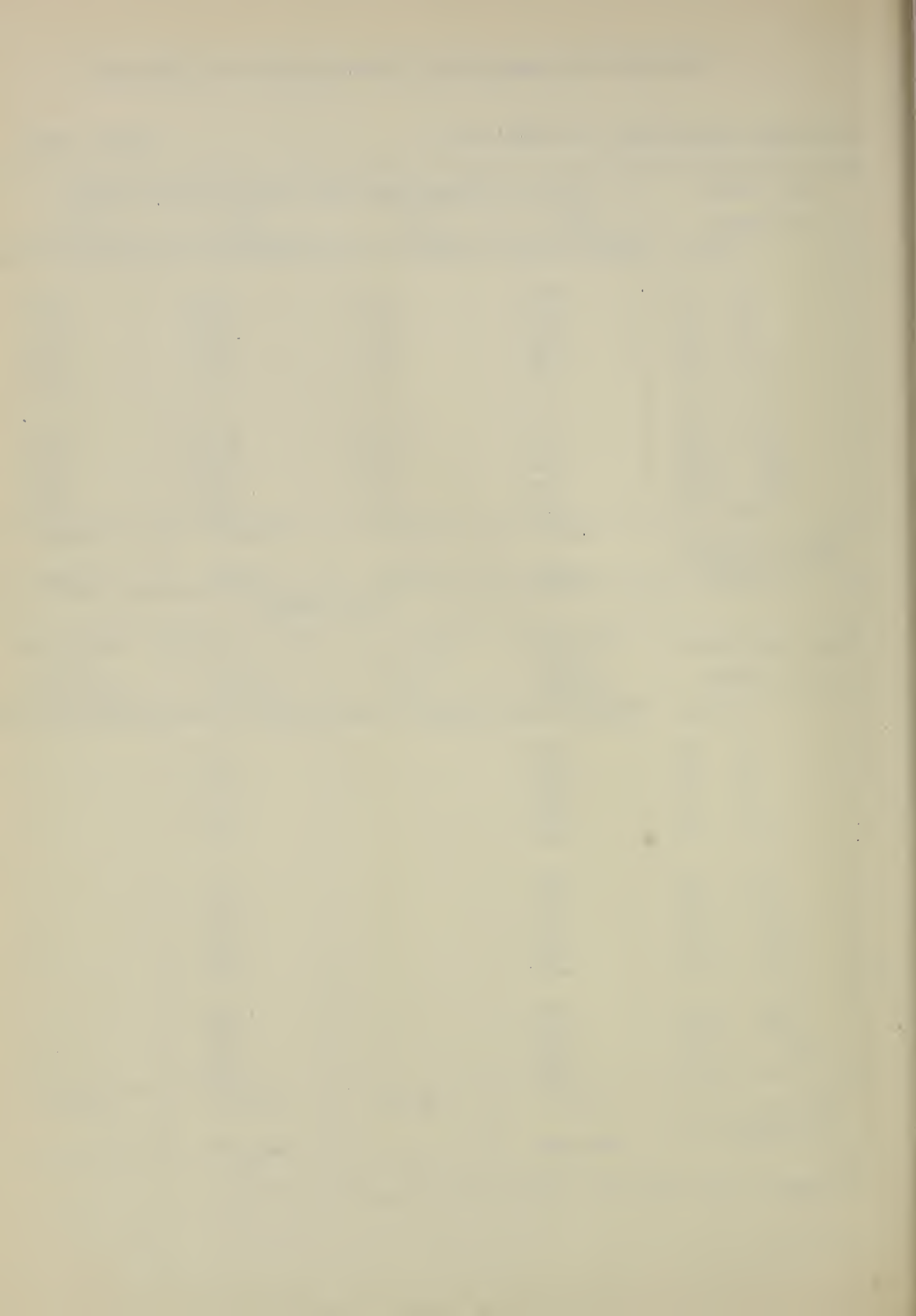
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Big Bear Lake

Unit No. B-23

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.00	0.05	0.00
21 - 40	0.00	0.05	0.20	0.00
41 - 60	0.00	0.10	0.35	0.00
61 - 100	0.05	0.15	0.50	0.05
101 - 180	0.05	0.25	0.90	0.05
181 - 300	0.10	0.45	1.55	0.10
301 - 600	0.15	0.80	2.85	0.15
601 - 1000	0.20	1.10	3.90	0.25
1001 - 1750	0.20	1.10	3.90	0.25
Over 1750	0.20	1.10	3.90	0.25
Maximum area for computing damage on slopes	(acres) 2,910	(acres) 12,106	(acres) 2,059	(acres) 5,987
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00		0.00	
21 - 40	0.00		0.00	
41 - 60	0.00		0.00	
61 - 100	0.00		0.00	
101 - 180	0.00		0.00	
181 - 300	0.00		0.00	
301 - 600	0.00		0.00	
601 - 1000	0.00		0.00	
1001 - 1750	0.00		0.05	
1751 - 3000	0.00		0.05	
3001 - 5000	0.00		0.05	
5001 - 9000	0.00		0.05	
9001 - 15,000	0.00		0.05	
Over 15,000	0.00		0.05	
Maximum area for computing other damages	(acres) 23,062	(acres)	(acres) 23,062	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Oak Creek

Unit No. B-24

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.25
21 - 40				1.10
41 - 60				1.85
61 - 100				2.75
101 - 180				3.70
181 - 300				3.70
301 - 600				3.70
601 - 1000				3.70
1001 - 1750				3.70
Over 1750				3.70
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				2,342
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.05	4.55	
21 - 40		0.25	20.90	
41 - 60		0.40	36.10	
61 - 100		0.65	57.00	
101 - 180		1.15	72.00	
181 - 300		1.95	72.00	
301 - 600		3.60	72.00	
601 - 1000		6.50	72.00	
1001 - 1750		11.10	72.00	
Over 1750		14.40	72.00	
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		2,342	2,342	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



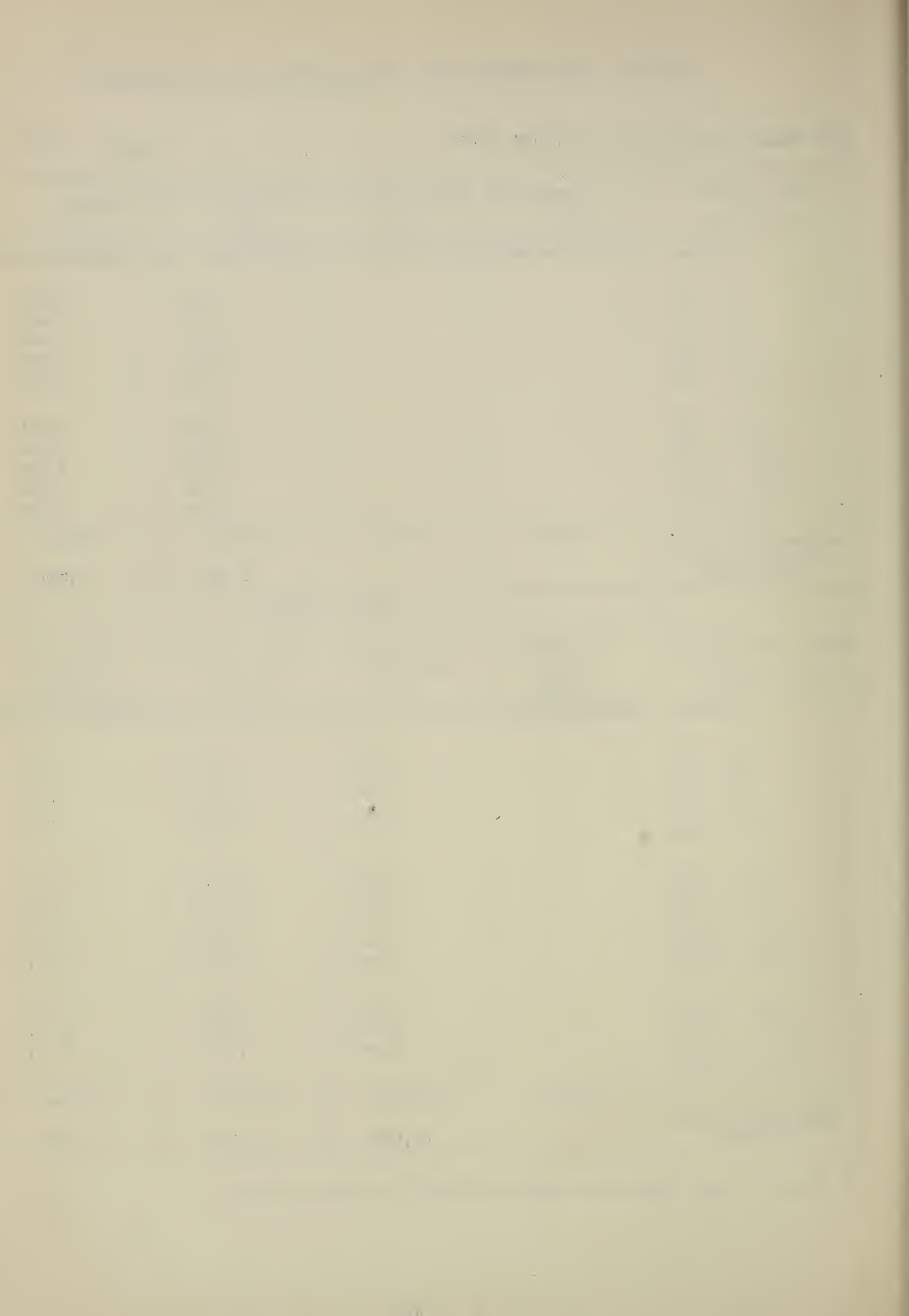
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Plunge Creek

Unit No. B-25

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20			0.30	0.05
21 - 40			1.45	0.10
41 - 60			2.50	0.20
61 - 100			3.90	0.30
101 - 180			4.95	0.55
181 - 300			4.95	0.95
301 - 600			4.95	1.25
601 - 1000			4.95	1.25
1001 - 1750			4.95	1.25
Over 1750			4.95	1.25
Maximum area for computing damage on slopes	(acres)	(acres)	(acres) 3,226	(acres) 7,596
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20		0.00	0.85	0.00
21 - 40		0.00	3.85	0.10
41 - 60		0.00	6.60	0.20
61 - 100		0.00	10.40	0.30
101 - 180		0.00	18.10	0.50
181 - 300		0.05	31.10	0.85
301 - 600		0.10	57.50	1.55
601 - 1000		0.15	79.50	2.10
1001 - 1750		0.35	79.50	2.10
1751 - 3000		0.75	79.50	2.10
3001 - 5000		1.45	79.50	2.10
5001 - 9000		2.70	79.50	2.10
9001 - 15,000		4.25	79.50	2.10
Over 15,000				
Maximum area for computing other damages	(acres)	(acres) 10,822	(acres) 10,822	(acres) 10,822

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





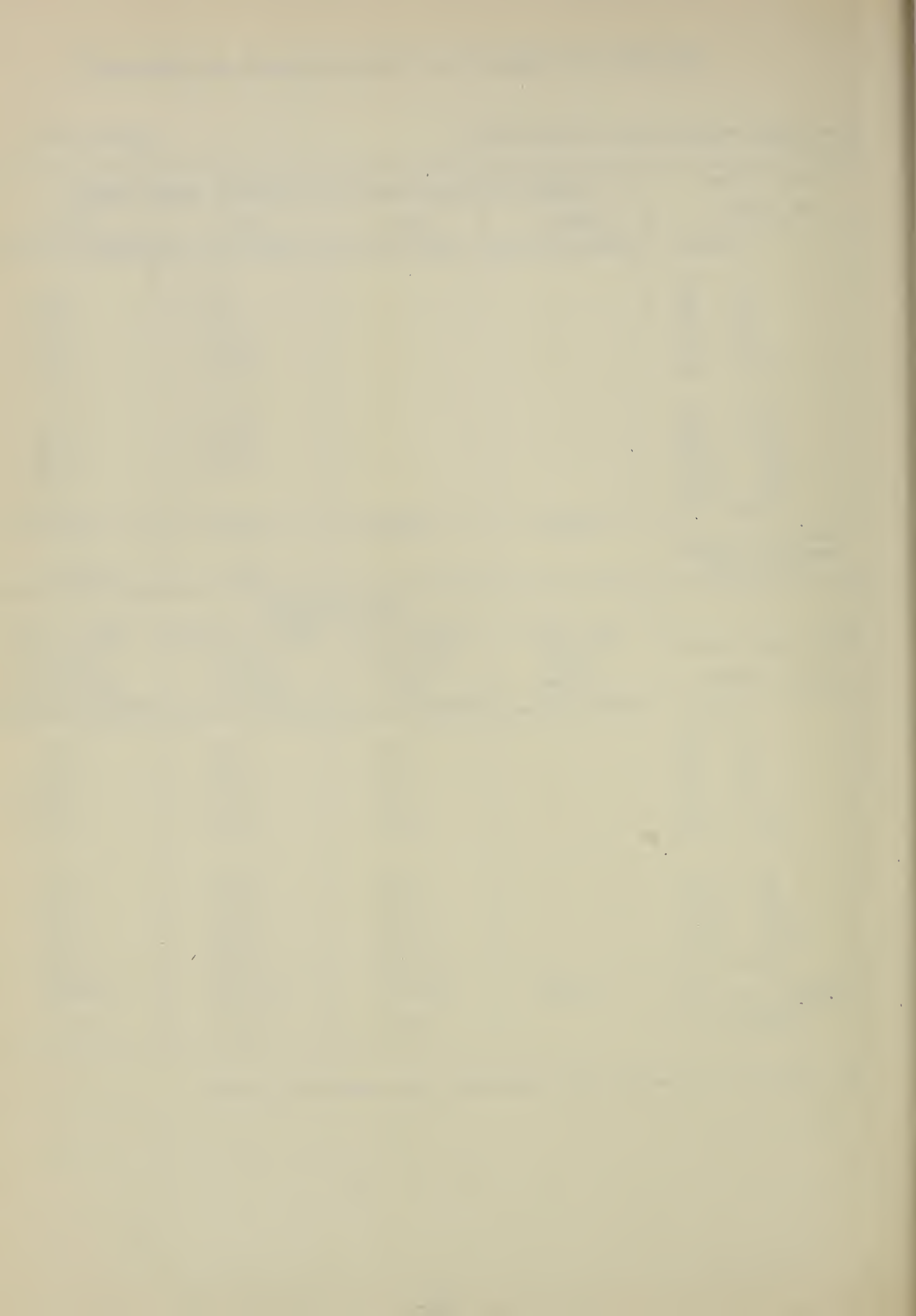
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Alder Creek

Unit No. B-26

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20			1.60	0.10
21 - 40			7.40	0.50
41 - 60			12.80	0.85
61 - 100			20.20	1.40
101 - 180			25.60	2.40
181 - 300			25.60	3.15
301 - 600			25.60	3.15
601 - 1000			25.60	3.15
1001 - 1750				3.15
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
			870	1,127
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		1.10	1.95	0.00
21 - 40		5.10	8.80	0.00
41 - 60		8.80	15.20	0.05
61 - 100		13.90	24.10	0.05
101 - 180		24.00	41.70	0.10
181 - 300		41.20	71.50	0.20
301 - 600		76.50	91.50	0.25
601 - 1000		138.00	91.50	0.25
1001 - 1750		176.00	91.50	0.25
Over 1750		176.00	91.50	0.25
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		1,997	1,997	1,997

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: City Creek

Unit No. B-27

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.25	2.15	0.10	0.00
21 - 40	1.15	9.90	0.45	0.05
41 - 60	1.95	17.10	0.80	0.10
61 - 100	3.05	20.60	1.25	0.15
101 - 180	3.90	20.60	2.15	0.20
181 - 300	3.90	20.60	2.80	0.40
301 - 600	3.90	20.60	2.80	0.70
601 - 1000	3.90	20.60	2.80	1.25
1001 - 1750	3.90		2.80	1.60
Over 1750			2.80	1.60
Maximum area for computing damage on slopes	(acres) 1,043	(acres) 806	(acres) 3,807	(acres) 7,099
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.65	0.00
21 - 40	0.00	0.00	3.10	0.10
41 - 60	0.00	0.00	5.40	0.15
61 - 100	0.00	0.00	8.40	0.25
101 - 180	0.00	0.00	14.70	0.40
181 - 300	0.00	0.05	25.10	0.65
301 - 600	0.00	0.05	46.60	1.25
601 - 1000	0.00	0.15	64.00	2.25
1001 - 1750	0.00	0.30	64.00	2.85
1751 - 3000	0.05	0.60	64.00	2.85
3001 - 5000	0.05	1.20	64.00	2.85
5001 - 9000	0.15	2.35	64.00	2.85
9001 - 15,000	0.25	4.35	64.00	2.85
Over 15,000				
Maximum area for computing other damages	(acres) 12,755	(acres) 12,755	(acres) 12,755	(acres) 12,755

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Sand Creek

Unit No. B-28

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20			0.00	0.25
21 - 40			0.00	1.15
41 - 60			0.05	1.95
61 - 100			0.05	3.05
101 - 180			0.05	5.30
181 - 300			0.05	7.00
301 - 600			0.05	7.00
601 - 1000			0.05	7.00
1001 - 1750			0.05	7.00
Over 1750			0.05	7.00
Maximum area for computing damage on slopes	(acres)	(acres)	(acres) 1,914	(acres) 4,262

OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	3.60	
21 - 40	0.00	0.00	16.60	
41 - 60	0.10	2.60	28.50	
61 - 100	0.20	4.10	45.10	
101 - 180	0.35	7.20	78.00	
181 - 300	0.55	12.30	134.00	
301 - 600	1.05	22.70	171.00	
601 - 1000	1.90	41.00	171.00	
1001 - 1750	3.25	70.00	171.00	
1751 - 3000	4.25	91.50	171.00	
3001 - 5000	4.25	91.50	171.00	
Over 5000	4.25	91.50	171.00	
Maximum area for computing other damages	(acres) 6,176	(acres) 6,176	(acres) 6,176	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



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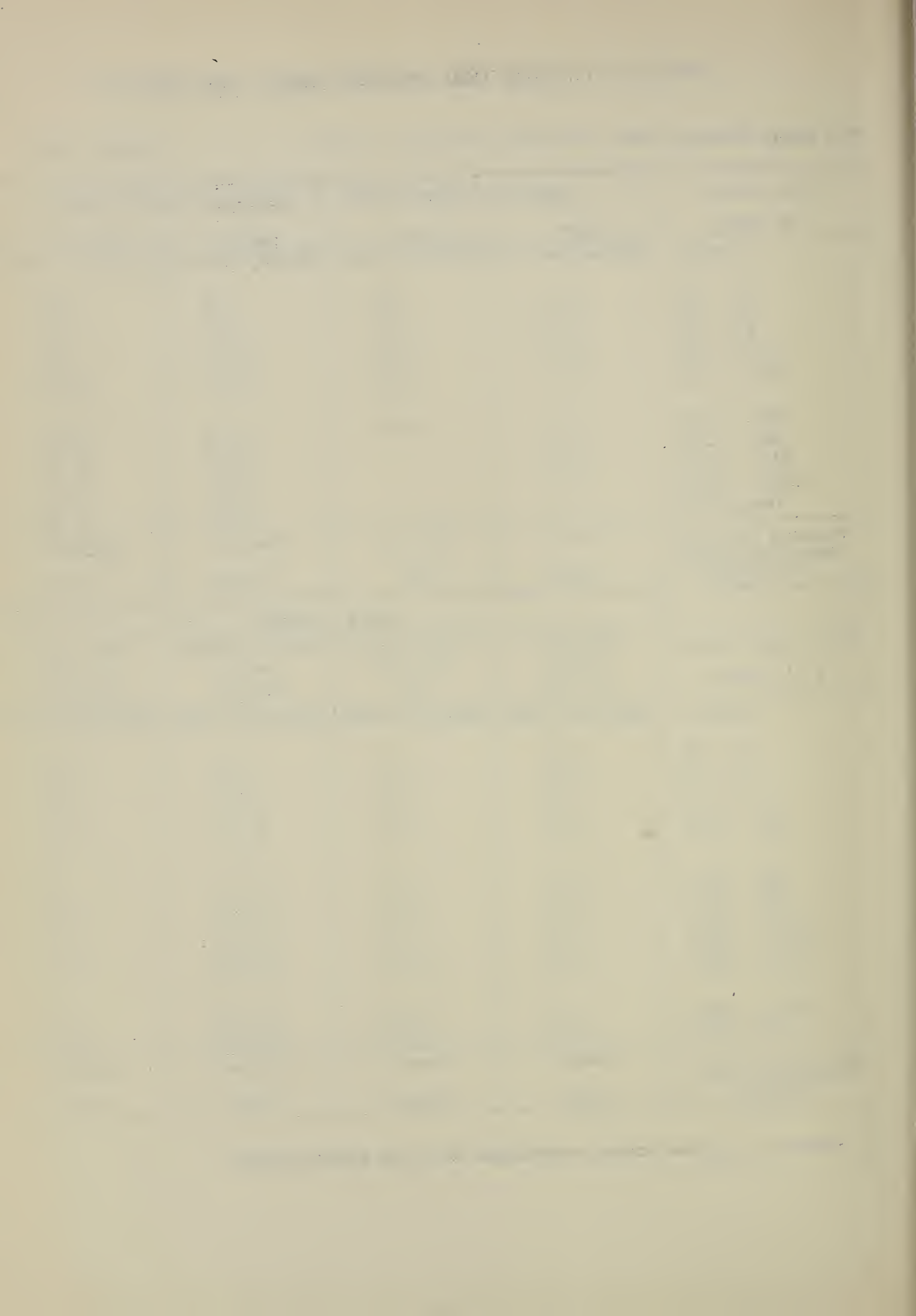
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Waterman-Strawberry Creeks

Unit No. B-29

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	12.10	2.00	1.70	0.65
21 - 40	55.50	9.30	7.80	3.00
41 - 60	96.00	12.80	13.40	5.20
61 - 100	152.00	12.80	21.20	8.20
101 - 180	192.00	12.80	36.70	14.20
181 - 300	192.00	12.80	48.30	24.40
301 - 600	192.00		48.30	31.10
601 - 1000	192.00		48.30	31.10
1001 - 1750	192.00		48.30	31.10
Over 1750			48.30	31.10
Maximum area for computing damage on slopes	(acres) 1,274	(acres) 269	(acres) 2,839	(acres) 4,566
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	4.10	0.05
21 - 40	0.00	0.00	19.00	0.15
41 - 60	0.05	0.40	32.70	0.30
61 - 100	0.05	0.65	51.50	0.45
101 - 180	0.10	1.15	89.50	0.80
181 - 300	0.15	2.00	154.00	1.35
301 - 600	0.25	3.70	196.00	2.55
601 - 1000	0.45	6.60	196.00	3.50
1001 - 1750	0.75	11.40	196.00	3.50
1751 - 3000	1.30	19.70	196.00	3.50
3001 - 5000	2.15	33.10	196.00	3.50
Over 5000	2.45	75.50	196.00	3.50
Maximum area for computing other damages	(acres) 8,948	(acres) 8,948	(acres) 8,948	(acres) 8,948

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Badger Canyon

Unit No. B-30

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20			0.50	0.15
21 - 40			2.25	0.60
41 - 60			3.85	1.05
61 - 100			6.10	1.60
101 - 180			7.70	2.80
181 - 300			7.70	3.70
301 - 600			7.70	3.70
601 - 1000			7.70	3.70
1001 - 1750			7.70	3.70
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
			1,081	1,402
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.05	1.70	
21 - 40	0.00	0.30	7.80	
41 - 60	0.00	0.50	13.50	
61 - 100	0.00	0.80	21.30	
101 - 180	0.05	1.40	37.00	
181 - 300	0.05	2.40	63.50	
301 - 600	0.15	4.50	81.00	
601 - 1000	0.25	8.10	81.00	
1001 - 1750	0.40	10.30	81.00	
Over 1750	0.80	10.30	81.00	
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
	2,483	2,483	2,483	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit; Devil Canyon

Unit No. B-31

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.05	1.20	0.30
21 - 40	0.00	0.30	5.40	1.40
41 - 60	0.05	0.50	9.40	2.40
61 - 100	0.05	0.60	14.80	3.75
101 - 180	0.05	0.60	18.80	6.50
181 - 300	0.05	0.60	18.80	8.60
301 - 600	0.05		18.80	8.60
601 - 1000			18.80	8.60
1001 - 1750				
Over 1750				
Maximum area for computing damage on slopes	(acres) 441	(acres) 262	(acres) 869	(acres) 2,129
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	2.05	0.05
21 - 40	0.00	0.30	9.40	0.30
41 - 60	0.00	0.50	16.20	0.50
61 - 100	0.05	0.90	25.50	0.80
101 - 180	0.05	1.65	44.30	1.35
181 - 300	0.10	3.25	76.00	2.35
301 - 600	0.25	7.50	97.00	4.35
601 - 1000	0.55	16.70	97.00	6.00
1001 - 1750	1.15	33.40	97.00	6.00
1751 - 3000	2.10	61.50	97.00	6.00
3001 - 5000	3.35	98.50	97.00	6.00
Over 5000				
Maximum area for computing other damages	(acres) 3,701	(acres) 3,701	(acres) 3,701	(acres) 3,701

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.







# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Bailey Canyon

Unit No. B-32

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20			0.45	0.10
21 - 40			2.00	0.45
41 - 60			3.45	0.80
61 - 100			5.40	1.25
101 - 180			6.90	2.15
181 - 300			6.90	2.85
301 - 600			6.90	2.85
601 - 1000			6.90	2.85
1001 - 1750				2.85
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
			708	1,317
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.05	1.55	
21 - 40	0.00	0.35	7.10	
41 - 60	0.00	0.60	12.20	
61 - 100	0.00	0.95	19.30	
101 - 180	0.00	1.60	33.50	
181 - 300	0.00	2.75	57.50	
301 - 600	0.05	5.10	73.50	
601 - 1000	0.05	9.30	73.50	
1001 - 1750	0.10	11.80	73.50	
Over 1750	0.20	11.80	73.50	
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
	2,025	2,025	2,025	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Cable Canyon

Unit No.B-33

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20			0.00	0.00
21 - 40			0.00	0.05
41 - 60			0.00	0.10
61 - 100			0.00	0.10
101 - 180			0.00	0.20
181 - 300			0.00	0.35
301 - 600			0.00	0.65
601 - 1000			0.00	0.90
1001 - 1750				0.90
Over 1750				0.90
Maximum area for computing damage on slopes	(acres)	(acres)	(acres) 992	(acres) 2,708
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	1.35	0.00
21 - 40	0.00	0.25	6.30	0.00
41 - 60	0.00	0.40	10.90	0.05
61 - 100	0.00	0.65	17.20	0.05
101 - 180	0.00	1.15	29.80	0.05
181 - 300	0.00	2.00	51.00	0.10
301 - 600	0.00	3.70	94.50	0.20
601 - 1000	0.00	6.70	130.00	0.30
1001 - 1750	0.00	11.40	130.00	0.30
1751 - 3000	0.00	19.70	130.00	0.30
3001 - 5000	0.00	31.40	130.00	0.30
Over 5000				
Maximum area for computing other damages	(acres) 3,700	(acres) 3,700	(acres) 3,700	(acres) 3,700

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Cajon Canyon

Unit No. B-34

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00		0.60	0.10
21 - 40	0.05		2.65	0.35
41 - 60	0.10		4.60	0.65
61 - 100	0.15		7.20	1.00
101 - 180	0.30		12.60	1.75
181 - 300	0.50		21.50	3.05
301 - 600	0.90		39.80	5.60
601 - 1000	1.60		55.00	10.20
1001 - 1750	2.75		55.00	17.30
Over 1750	3.55		55.00	22.60
Maximum area for computing damage on slopes	(acres) 11,955	(acres)	(acres) 3,992	(acres) 16,531
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.25	0.00
21 - 40	0.00	0.00	1.10	0.00
41 - 60	0.00	0.00	1.95	0.00
61 - 100	0.00	0.00	3.05	0.05
101 - 180	0.00	0.00	5.30	0.05
181 - 300	0.05	0.00	9.10	0.10
301 - 600	0.05	0.00	16.80	0.15
601 - 1000	0.15	0.10	30.40	0.30
1001 - 1750	0.30	0.10	38.70	0.50
1751 - 3000	0.55	0.15	38.70	0.70
3001 - 5000	1.10	0.30	38.70	0.70
5001 - 9000	2.45	0.60	38.70	0.70
9001 - 15,000	4.85	1.30	38.70	0.70
15,001 - 25,000	8.80	2.40	38.70	0.70
25,001 - 50,000	14.60	4.70	38.70	0.70
Over 50,000				
Maximum area for computing other damages	(acres) 32,478	(acres) 32,478	(acres) 32,478	(acres) 32,478

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Lone Pine Canyon

Unit No. B-35

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.00		0.00
21 - 40	0.00	0.10		0.05
41 - 60	0.05	0.15		0.05
61 - 100	0.05	0.25		0.10
101 - 180	0.10	0.45		0.15
181 - 300	0.15	0.80		0.25
301 - 600	0.25	1.45		0.35
601 - 1000	0.35	2.00		0.35
1001 - 1750	0.35	2.00		0.35
Over 1750	0.35	2.00		0.35
Maximum area for computing damage on slopes	(acres) 2,764	(acres) 3,385	(acres)	(acres) 3,474
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.20	0.00
21 - 40	0.00	0.00	0.95	0.05
41 - 60	0.00	0.00	1.60	0.10
61 - 100	0.00	0.00	2.55	0.20
101 - 180	0.00	0.00	4.45	0.30
181 - 300	0.00	0.05	7.60	0.55
301 - 600	0.05	0.05	14.10	1.00
601 - 1000	0.10	0.15	19.50	1.80
1001 - 1750	0.20	0.30	19.50	2.25
1751 - 3000	0.45	0.60	19.50	2.25
3001 - 5000	0.85	1.15	19.50	2.25
5001 - 9000	1.55	2.15	19.50	2.25
9001 - 15,000	2.20	3.00	19.50	2.25
Over 15,000				
Maximum area for computing other damages	(acres) 9,623	(acres) 9,623	(acres) 9,623	(acres) 9,623

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF. AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Sycamore Flat

Unit No. B-36

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.50
21 - 40				2.35
41 - 60				4.05
61 - 100				6.40
101 - 180				11.00
181 - 300				14.50
301 - 600				14.50
601 - 1000				14.50
1001 - 1750				
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				876
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.00	5.70	
21 - 40		0.05	26.40	
41 - 60		0.05	45.50	
61 - 100		0.10	72.00	
101 - 180		0.20	125.00	
181 - 300		0.30	164.00	
301 - 600		0.60	164.00	
601 - 1000		1.15	164.00	
1001 - 1750				
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		876	876	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Lytle Creek

Unit No. B-37

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.10	0.10		0.15
21 - 40	0.40	0.50		0.60
41 - 60	0.65	0.90		1.00
61 - 100	1.05	1.45		1.60
101 - 180	1.85	2.45		2.75
181 - 300	3.15	3.25		4.70
301 - 600	5.80	3.25		6.00
601 - 1000	8.00	3.25		6.00
1001 - 1750	8.00	3.25		6.00
Over 1750	8.00	3.25		6.00
Maximum area for computing damage on slopes	(acres) 1,752	(acres) 7,470	(acres)	(acres) 6,164
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.60	0.05
21 - 40	0.00	0.00	2.80	0.20
41 - 60	0.00	0.00	4.85	0.30
61 - 100	0.00	0.00	7.70	0.50
101 - 180	0.05	0.05	13.30	0.85
181 - 300	0.05	0.05	22.80	1.45
301 - 600	0.10	0.10	42.20	2.70
601 - 1000	0.20	0.20	58.00	4.90
1001 - 1750	0.45	0.35	58.00	8.40
1751 - 3000	0.90	0.75	58.00	10.90
3001 - 5000	1.90	1.55	58.00	10.90
5001 - 9000	3.70	3.00	58.00	10.90
9001 - 15,000	6.60	5.40	58.00	10.90
Over 15,000	8.70	7.10	58.00	10.90
Maximum area for computing other damages	(acres) 15,386	(acres) 15,386	(acres) 15,386	(acres) 15,386

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.







# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Duncan Canyon

Unit No. B-38

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				1.05
21 - 40				4.90
41 - 60				8.40
61 - 100				13.30
101 - 180				23.00
181 - 300				30.30
301 - 600				30.30
601 - 1000				30.30
1001 - 1750				30.30
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				1,606
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.05	1.95	
21 - 40		0.30	9.00	
41 - 60		0.55	15.50	
61 - 100		0.85	24.50	
101 - 180		1.50	42.50	
181 - 300		2.55	56.00	
301 - 600		4.70	56.00	
601 - 1000		8.50	56.00	
1001 - 1750		17.40	56.00	
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		1,606	1,606	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: San Sevaine Canyon

Unit No. B-39

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.30
21 - 40				1.30
41 - 60				2.30
61 - 100				3.60
101 - 180				6.20
181 - 300				10.70
301 - 600				13.70
601 - 1000				13.70
1001 - 1750				13.70
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				1,222
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.25	2.50	
21 - 40		1.25	11.60	
41 - 60		2.15	20.00	
61 - 100		3.40	31.60	
101 - 180		5.90	55.00	
181 - 300		10.10	94.00	
301 - 600		18.60	120.00	
601 - 1000		33.70	120.00	
1001 - 1750		52.50	120.00	
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		1,222	1,222	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Morse Canyon

Unit No. B-40

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.30
21 - 40				1.30
41 - 60				2.20
61 - 100				3.50
101 - 180				6.10
181 - 300				10.50
301 - 600				13.40
601 - 1000				13.40
1001 - 1750				13.40
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				1,647
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.10	1.25	
21 - 40		0.35	5.80	
41 - 60		0.65	9.90	
61 - 100		1.00	15.70	
101 - 180		1.75	59.50	
181 - 300		3.05	59.50	
301 - 600		5.60	59.50	
601 - 1000		10.20	59.50	
1001 - 1750		21.30	59.50	
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		1,647	1,647	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Etiwanda Canyon

Unit No. B-41

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20			0.00	0.05
21 - 40			0.05	0.30
41 - 60			0.10	0.50
61 - 100			0.15	0.80
101 - 180			0.15	1.05
181 - 300			0.15	1.05
301 - 600			0.15	1.05
601 - 1000			0.15	1.05
1001 - 1750				1.05
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
			691	1,344
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.10	2.10	0.05
21 - 40	0.00	0.55	9.70	0.15
41 - 60	0.00	0.95	16.70	0.25
61 - 100	0.00	1.45	26.40	0.40
101 - 180	0.00	2.55	45.70	0.65
181 - 300	0.05	4.35	78.50	1.15
301 - 600	0.05	8.10	100.00	1.45
601 - 1000	0.10	14.60	100.00	1.45
1001 - 1750	0.15	24.90	100.00	1.45
Over 1750	0.25	37.70	100.00	1.45
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
	2,035	2,035	2,035	2,035

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Day Guard Station

Unit. No. B-42

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.25
21 - 40				1.20
41 - 60				2.10
61 - 100				3.30
101 - 180				5.70
181 - 300				7.50
301 - 600				7.50
601 - 1000				7.50
1001 - 1750				
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				652
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.10	1.20	
21 - 40		0.55	5.50	
41 - 60		0.95	9.50	
61 - 100		1.50	15.00	
101 - 180		2.55	26.00	
181 - 300		4.40	34.20	
301 - 600		8.10	34.20	
601 - 1000		12.20	34.20	
1001 - 1750				
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		652	652	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Day Canyon

Unit No. B-43

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20			0.00	0.00
21 - 40			0.05	0.00
41 - 60			0.05	0.05
61 - 100			0.10	0.05
101 - 180			0.15	0.10
181 - 300			0.20	0.15
301 - 600			0.20	0.15
601 - 1000			0.20	0.15
1001 - 1750			0.20	0.15
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
			1,074	1,423
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.05	2.15	0.05
21 - 40	0.00	0.15	9.80	0.25
41 - 60	0.00	0.30	16.90	0.45
61 - 100	0.00	0.50	26.70	0.70
101 - 180	0.00	1.00	46.30	1.20
181 - 300	0.05	2.05	79.50	2.00
301 - 600	0.05	4.90	101.00	3.75
601 - 1000	0.15	10.20	101.00	5.20
1001 - 1750	0.25	19.20	101.00	5.20
Over 1750	0.50	35.70	101.00	5.20
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
	2,497	2,497	2,497	2,497

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Day Wash

Unit No. B-44

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.05
21 - 40				0.20
41 - 60				0.35
61 - 100				0.55
101 - 180				1.00
181 - 300				1.70
301 - 600				2.15
601 - 1000				2.15
1001 - 1750				2.15
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				1,197
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.10	1.55	
21 - 40		0.40	7.20	
41 - 60		0.65	12.40	
61 - 100		1.05	19.60	
101 - 180		1.80	34.00	
181 - 300		3.10	58.50	
301 - 600		5.70	74.50	
601 - 1000		10.40	74.50	
1001 - 1750		15.80	74.50	
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		1,197	1,197	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Deer Canyon

Unit No. B-45

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20			0.20	0.05
21 - 40			0.85	0.35
41 - 60			1.50	0.60
61 - 100			2.35	0.95
101 - 180			4.05	1.60
181 - 300			5.40	2.10
301 - 600			5.40	2.10
601 - 1000			5.40	2.10
1001 - 1750				
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
			700	1,000
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.05	0.25	0.95	0.10
21 - 40	0.15	1.05	4.30	0.40
41 - 60	0.25	1.85	7.40	0.70
61 - 100	0.40	2.90	11.80	1.10
101 - 180	0.65	5.00	20.40	1.85
181 - 300	1.15	8.60	35.00	3.20
301 - 600	2.10	15.90	65.00	5.90
601 - 1000	3.80	28.70	117.00	8.20
1001 - 1750	8.20	62.00	149.00	8.20
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
	1,700	1,700	1,700	1,700

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Alta Loma

Unit No. B-46

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				0.25
21 - 40				1.10
41 - 60				1.85
61 - 100				2.95
101 - 180				5.10
181 - 300				8.80
301 - 600				16.30
601 - 1000				22.40
1001 - 1750				22.40
Over 1750				22.40
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				2,374
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		0.05	1.05	
21 - 40		0.35	4.80	
41 - 60		0.60	8.20	
61 - 100		0.90	13.00	
101 - 180		1.60	22.60	
181 - 300		2.75	38.80	
301 - 600		5.00	72.00	
601 - 1000		9.10	99.00	
1001 - 1750		15.60	99.00	
Over 1750		20.30	99.00	
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		2,374	2,374	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Cucamonga Canyon

Unit No.B-47

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20			0.00	0.05
21 - 40			0.00	0.15
41 - 60			0.00	0.20
61 - 100			0.00	0.35
101 - 180			0.05	0.60
181 - 300			0.05	1.05
301 - 600			0.15	1.35
601 - 1000			0.20	1.35
1001 - 1750			0.20	1.35
Over 1750			0.20	1.35
Maximum area for computing damage on slopes	(acres)	(acres)	(acres) 2,134	(acres) 3,592
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	1.75	0.05
21 - 40	0.00	0.00	8.00	0.35
41 - 60	0.00	0.25	13.80	0.55
61 - 100	0.00	0.40	21.90	0.90
101 - 180	0.00	0.80	38.00	1.55
181 - 300	0.00	1.50	65.00	2.65
301 - 600	0.00	3.40	120.00	4.90
601 - 1000	0.05	7.40	166.00	6.80
1001 - 1750	0.10	15.70	166.00	6.80
1751 - 3000	0.20	31.10	166.00	6.80
3001 - 5000	0.35	55.00	166.00	6.80
Over 5000	0.50	80.50	166.00	6.80
Maximum area for computing other damages	(acres) 5,726	(acres) 5,726	(acres) 5,726	(acres) 5,726

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Frankish Canyon

Unit No. B-48

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20				1.00
21 - 40				4.50
41 - 60				7.70
61 - 100				12.20
101 - 180				15.50
181 - 300				15.50
301 - 600				15.50
601 - 1000				15.50
1001 - 1750				
Over 1750				
Maximum area for computing damage on slopes	(acres)	(acres)	(acres)	(acres)
				813
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20		1.60	12.30	
21 - 40		7.30	56.50	
41 - 60		12.60	97.50	
61 - 100		19.90	154.00	
101 - 180		34.50	267.00	
181 - 300		59.00	351.00	
301 - 600		75.50	351.00	
601 - 1000		75.50	351.00	
1001 - 1750				
Over 1750				
Maximum area for computing other damages	(acres)	(acres)	(acres)	(acres)
		813	813	

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



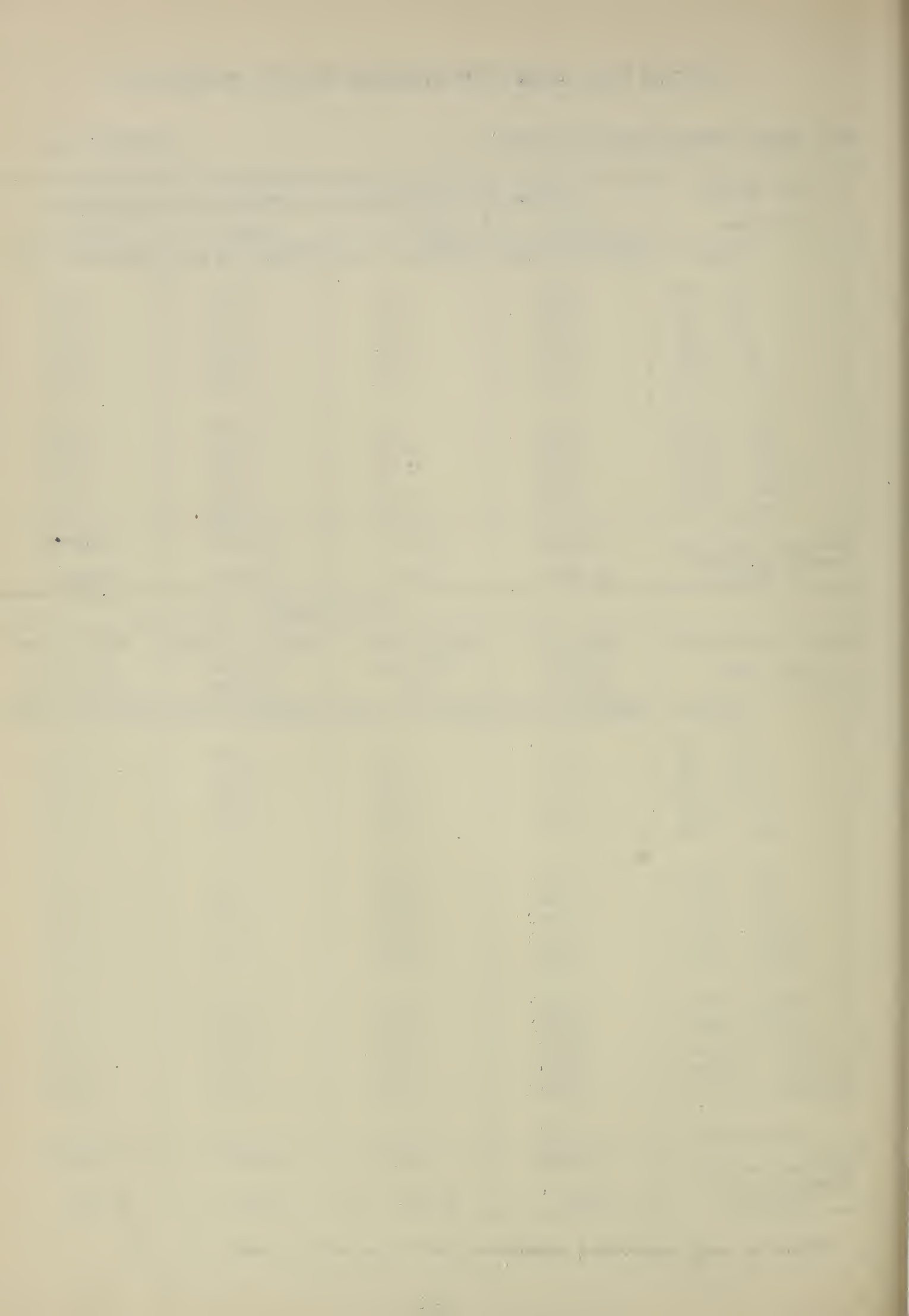
# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Deep Creek

Unit No. B-49

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.00	0.00	0.00
21 - 40	0.05	0.00	0.00	0.00
41 - 60	0.10	0.00	0.00	0.00
61 - 100	0.10	0.00	0.00	0.00
101 - 180	0.20	0.05	0.05	0.00
181 - 300	0.35	0.05	0.05	0.05
301 - 600	0.65	0.10	0.10	0.05
601 - 1000	1.20	0.15	0.15	0.10
1001 - 1750	1.50	0.15	0.15	0.15
Over 1750	1.50	0.15	0.15	0.15
Maximum area for computing damage on slopes	(acres) 31,280	(acres) 5,003	(acres) 2,413	(acres) 24,299
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.00	0.00	0.00
21 - 40	0.00	0.00	0.05	0.05
41 - 60	0.00	0.00	0.05	0.05
61 - 100	0.00	0.00	0.10	0.10
101 - 180	0.00	0.00	0.20	0.20
181 - 300	0.00	0.00	0.30	0.30
301 - 600	0.00	0.00	0.60	0.60
601 - 1000	0.00	0.00	1.10	1.05
1001 - 1750	0.00	0.00	1.85	1.80
1751 - 3000	0.00	0.00	2.40	3.10
3001 - 5000	0.00	0.00	2.40	4.00
5001 - 9000	0.00	0.05	2.40	4.00
9001 - 15,000	0.00	0.05	2.40	4.00
15,001 - 25,000	0.00	0.10	2.40	4.00
25,001 - 50,000	0.00	0.25	2.40	4.00
Over 50,000	0.00	0.40	2.40	4.00
Maximum area for computing other damages	(acres) 62,995	(acres) 62,995	(acres) 62,995	(acres) 62,995

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: West Fork

Unit No. B-50

Area burned by zones	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1	Zone 2	Zone 4	Zone 5
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.10	0.05	0.05	0.00
21 - 40	0.50	0.15	0.25	0.05
41 - 60	0.85	0.25	0.45	0.05
61 - 100	1.35	0.35	0.70	0.10
101 - 180	2.40	0.60	0.90	0.20
181 - 300	4.10	1.05	0.90	0.30
301 - 600	7.60	1.95	0.90	0.40
601 - 1000	13.70	2.70	0.90	0.40
1001 - 1750	17.40	2.70	0.90	0.40
Over 1750	17.40	2.70		0.40
Maximum area for computing damage on slopes	(acres) 17,273	(acres) 7,063	(acres) 1,568	(acres) 3,494
OTHER DAMAGES				
Total area burned in all zones	Upstream canyon bottom	Downstream overflow area	Debris storage and/or removal	Water from stream diversions
(acres)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)
0 - 20	0.00	0.00	0.05	
21 - 40	0.00	0.00	0.15	
41 - 60	0.00	0.00	0.30	
61 - 100	0.00	0.00	0.45	
101 - 180	0.00	0.00	0.80	
181 - 300	0.00	0.00	1.35	
301 - 600	0.00	0.00	2.55	
601 - 1000	0.00	0.00	4.60	
1001 - 1750	0.05	0.00	5.80	
1751 - 3000	0.05	0.05	5.80	
3001 - 5000	0.10	0.05	5.80	
5001 - 9000	0.25	0.10	5.80	
9001 - 15,000	0.45	0.20	5.80	
15,001 - 25,000	0.80	0.40	5.80	
25,001 - 50,000	1.20	0.60	5.80	
Over 50,000				
Maximum area for computing other damages	(acres) 29,398	(acres) 29,398	(acres) 29,398	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.





# EXPECTED FIRE DAMAGE FROM INCREASED RUN-OFF AND EROSION <sup>1/</sup>

Fire damage appraisal unit: Summit Valley

Unit No. B-51

Area burned by zones (acres)	DAMAGE TO IMPROVEMENTS ON UPSTREAM SLOPES BURNED			
	Zone 1 (dollars per acre)	Zone 2 (dollars per acre)	Zone 4 (dollars per acre)	Zone 5 (dollars per acre)
0 - 20	0.00	0.00	0.10	0.05
21 - 40	0.00	0.00	0.50	0.15
41 - 60	0.00	0.00	0.90	0.25
61 - 100	0.00	0.05	1.40	0.35
101 - 180	0.00	0.05	2.45	0.65
181 - 300	0.00	0.10	4.25	1.10
301 - 600	0.00	0.20	7.80	2.00
601 - 1000	0.00	0.40	10.80	2.75
1001 - 1750	0.00	0.50	10.80	2.75
Over 1750	0.00	0.50	10.80	2.75
Maximum area for computing damage on slopes	(acres) 2,406	(acres) 3,044	(acres) 3,456	(acres) 3,808
OTHER DAMAGES				
Total area burned in all zones (acres)	Upstream canyon bottom (dollars per acre)	Downstream overflow area (dollars per acre)	Debris storage and/or removal (dollars per acre)	Water from stream diversions (dollars per acre)
0 - 20	0.00	0.00	0.00	
21 - 40	0.00	0.00	0.05	
41 - 60	0.00	0.00	0.10	
61 - 100	0.00	0.00	0.15	
101 - 180	0.00	0.00	0.30	
181 - 300	0.00	0.00	0.45	
301 - 600	0.00	0.00	0.85	
601 - 1000	0.00	0.00	1.60	
1001 - 1750	0.00	0.05	2.00	
1751 - 3000	0.05	0.05	2.00	
3001 - 5000	0.05	0.10	2.00	
5001 - 9000	0.15	0.20	2.00	
9001 - 15,000	0.25	0.40	2.00	
Over 15,000				
Maximum area for computing other damages	(acres) 12,714	(acres) 12,714	(acres) 12,714	(acres)

<sup>1/</sup> Based on 1945 watershed conditions and 1941 price levels.



FIRE DAMAGE APPRAISAL UNIT MAPS

San Bernardino National Forest

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1  
1

# FIRE DAMAGE APPRAISAL UNIT MAPS

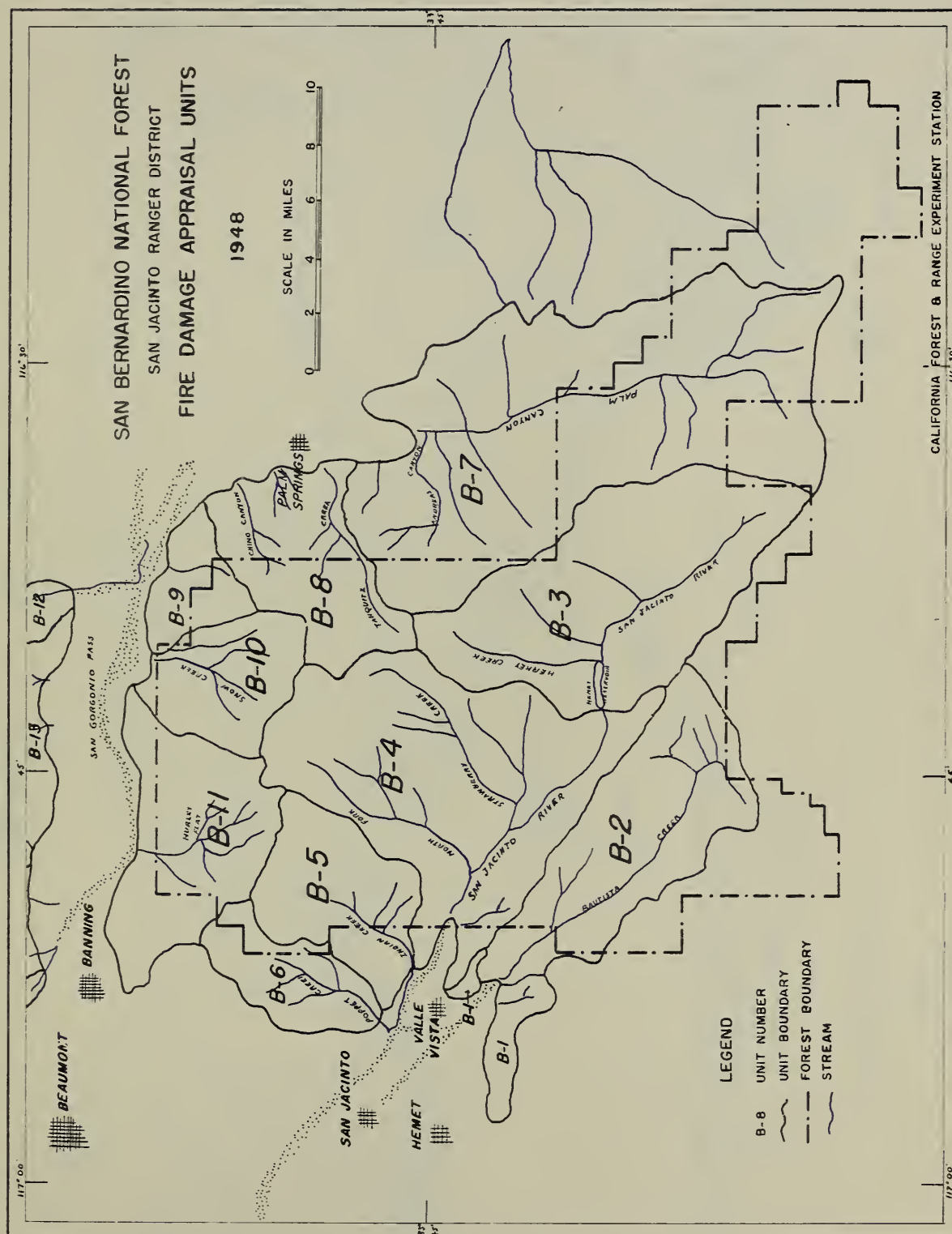
<u>No.</u>	<u>Name</u>
B-1	Reservoir Butte
2	Bautista Creek
3	Hemet Valley
4	San Jacinto River
5	Indian Creek
6	Poppet Creek
7	Palm Canyon
8	Tahquitz Creek
9	Blaisdell Canyon
10	Snow Creek
11	Cabezon Peak

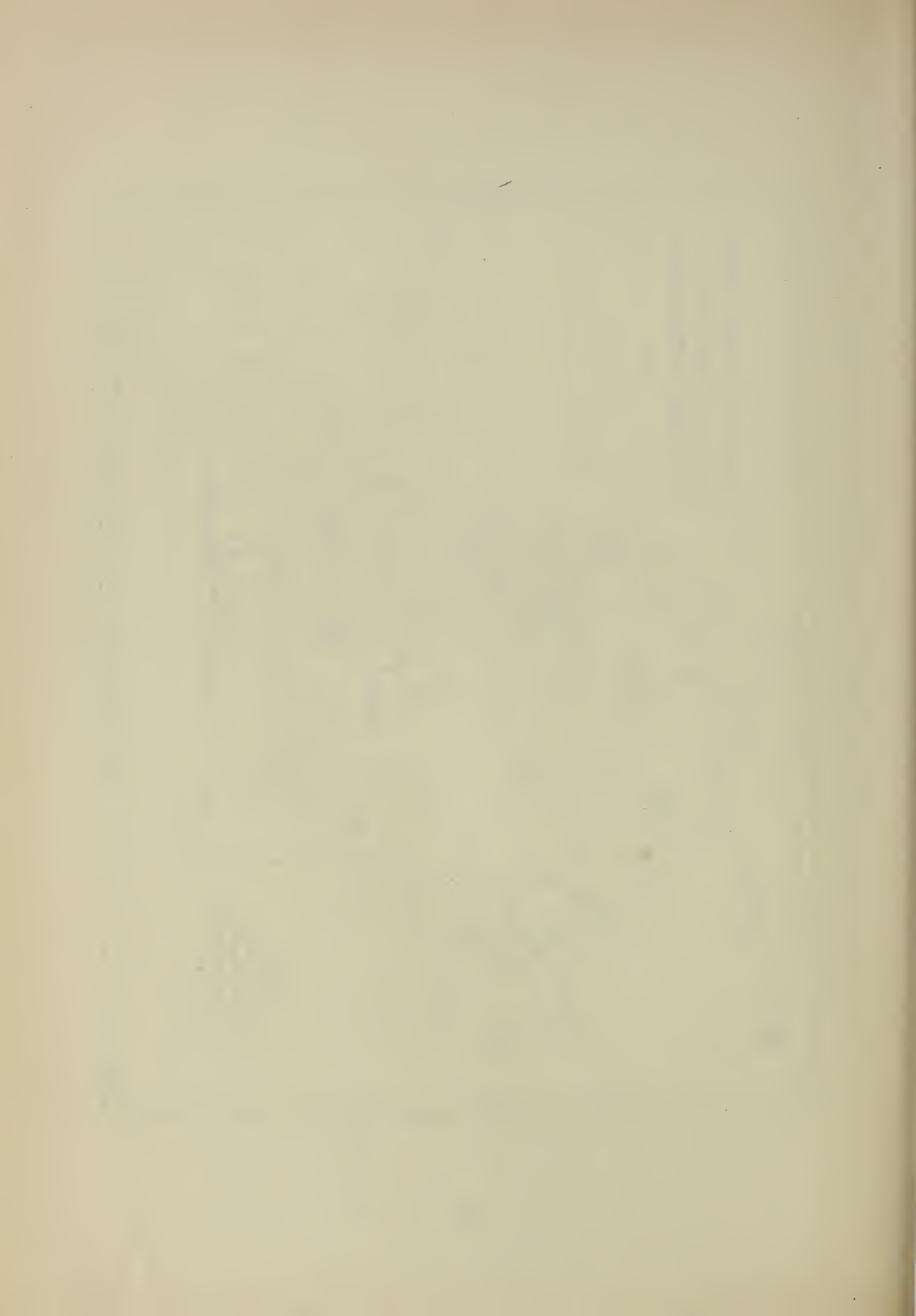
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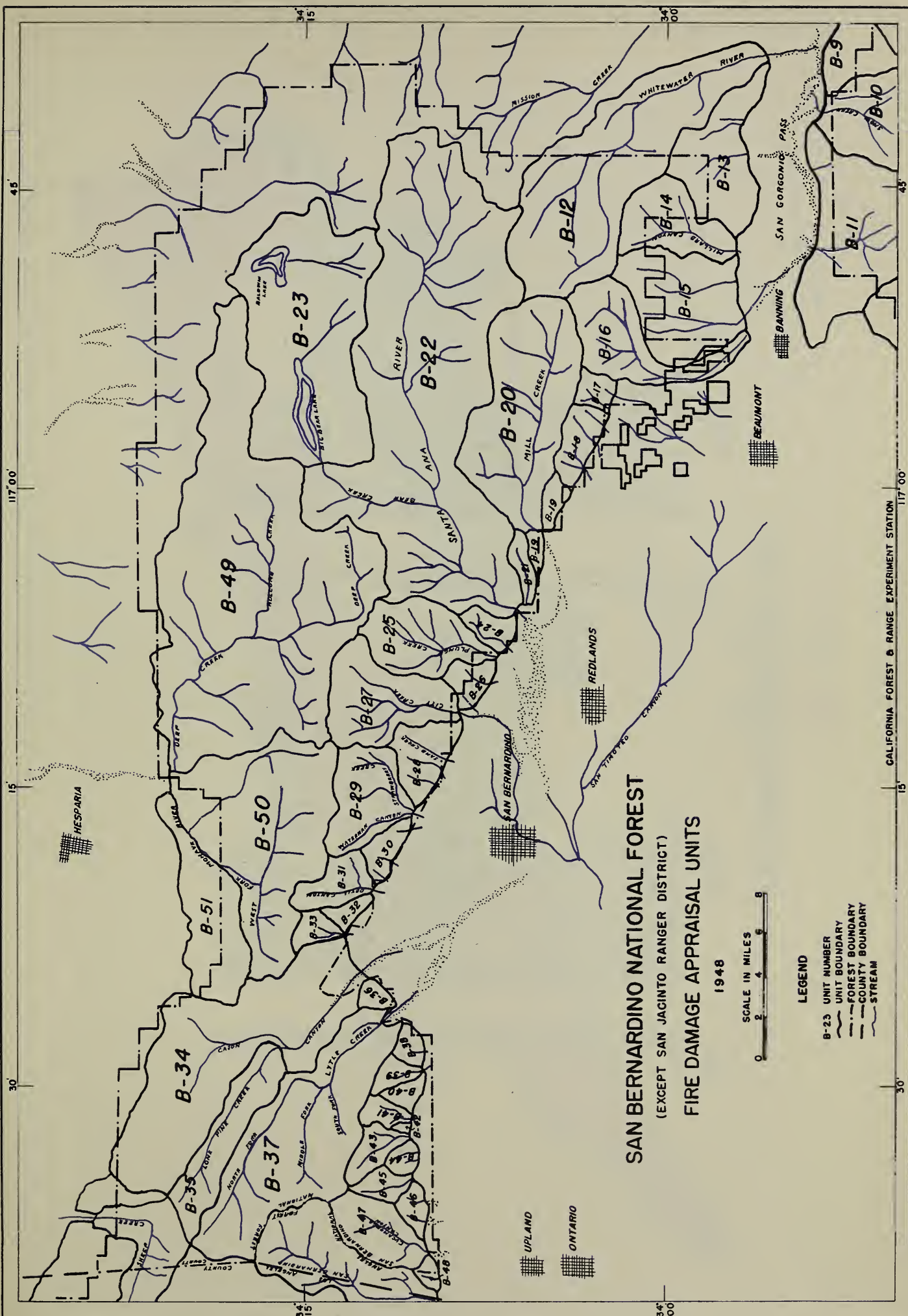


## 1948

SCALE IN MILES





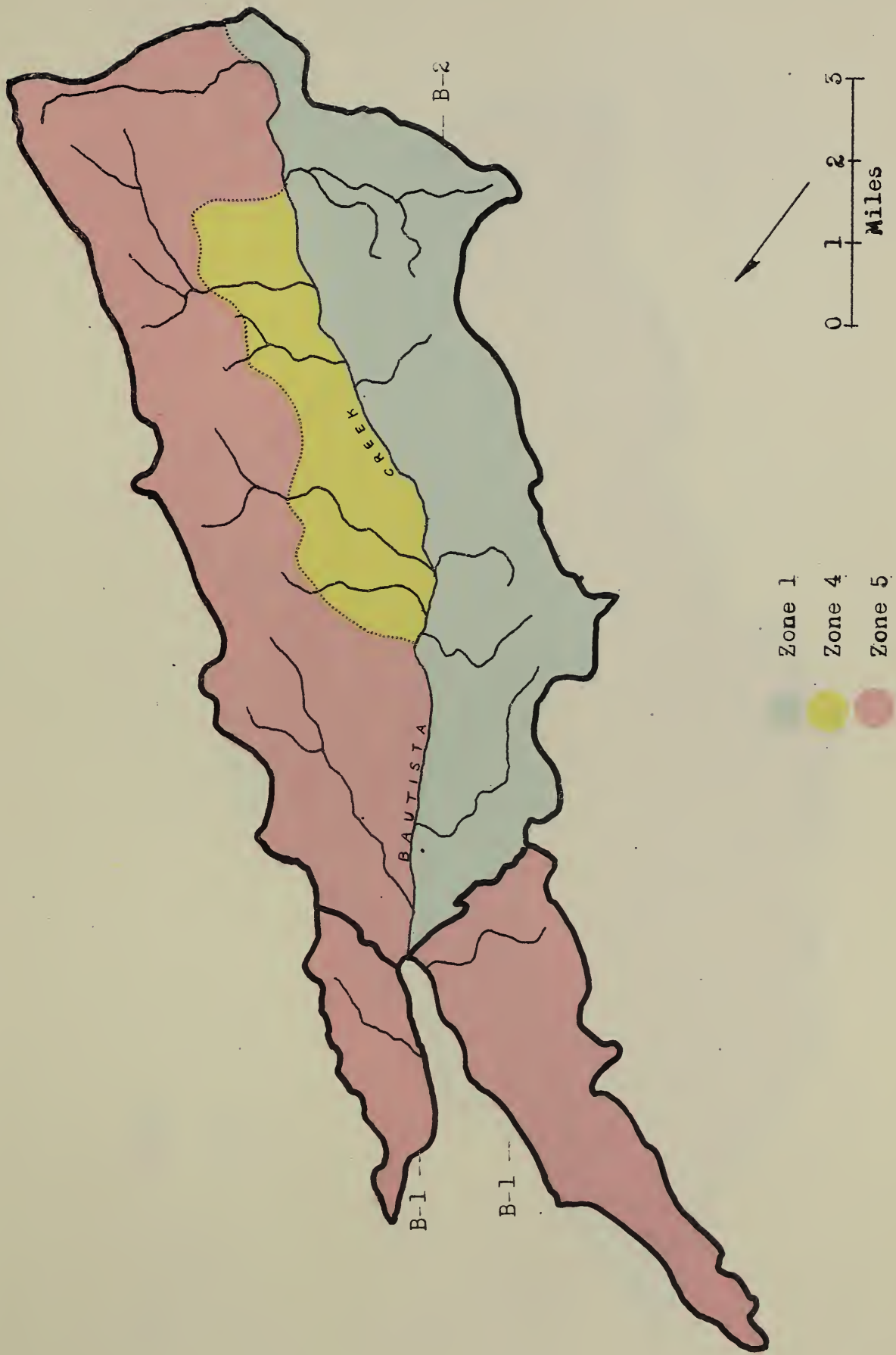


# FIRE DAMAGE APPRAISAL UNIT MAPS

<u>No.</u>	<u>Name</u>	<u>No.</u>	<u>Name</u>
B-12	Whitewater River	B-32	Bailey Canyon
13	Stubby Canyon	33	Cable Canyon
14	Millard Canyon	34	Cajon Canyon
15	Hathaway Creek	35	Lone Pine Canyon
16	Banning Canyon	36	Sycamore Flat
17	Cherry Creek	37	Lytle Creek
18	Potato Creek	38	Duncan Canyon
19	Mill Creek Wash	39	San Sevaine Canyon
20	Mill Creek	40	Morse Canyon
21	Morton Canyon	41	Etiwanda Canyon
22	Santa Ana River	42	Day Guard Station
23	Big Bear Lake	43	Day Canyon
24	Oak Creek	44	Day Wash
25	Plunge Creek	45	Deer Canyon
26	Alder Creek	46	Alta Loma
27	City Creek	47	Cucamonga Canyon
28	Sand Creek	48	Frankish Canyon
29	Waterman-Strawberry Creeks	49	Deep Creek
30	Badger Canyon	50	West Fork
31	Devil Canyon	51	Summit Valley

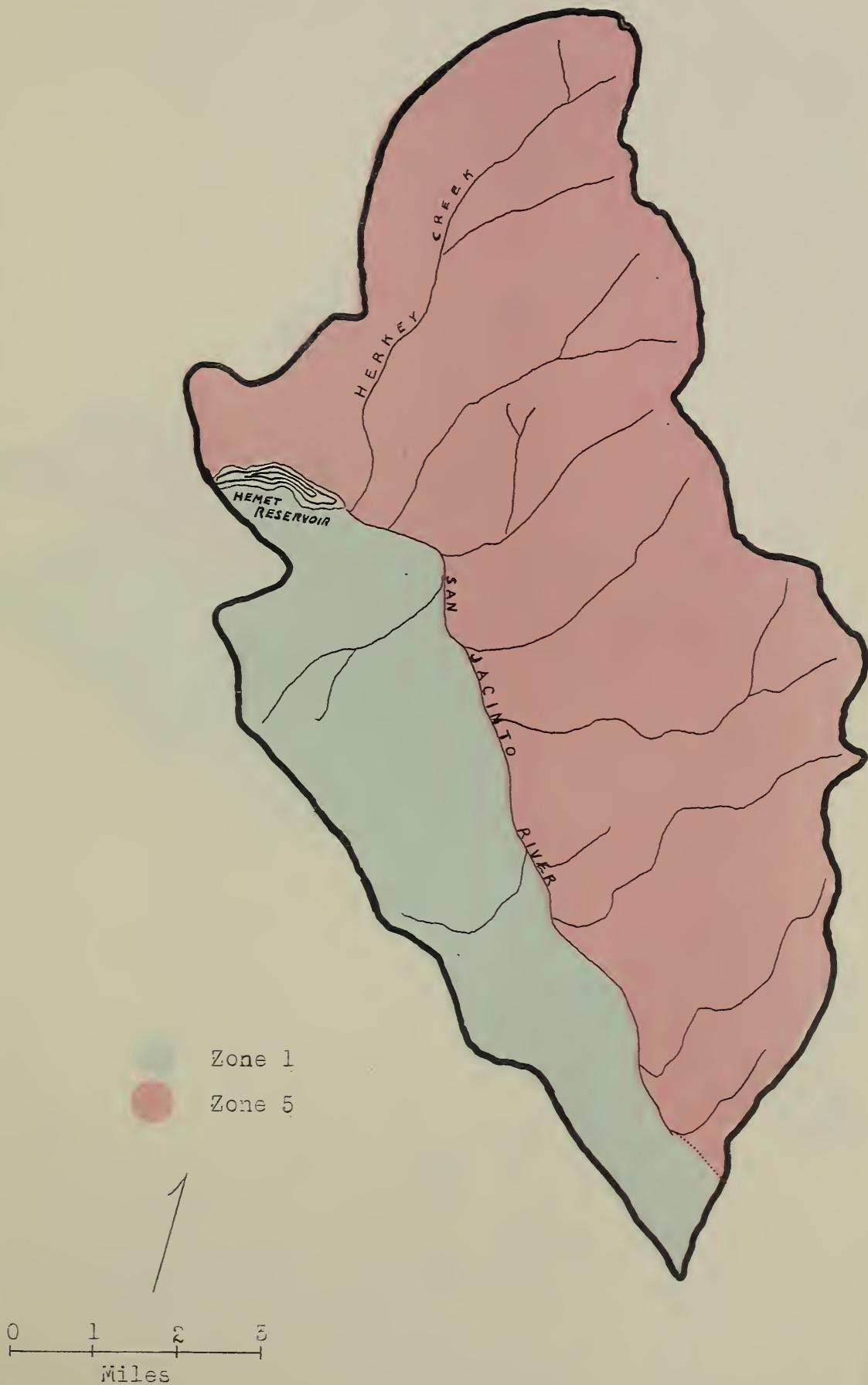


Reservoir Butte B-1  
Bautista Creek B-2

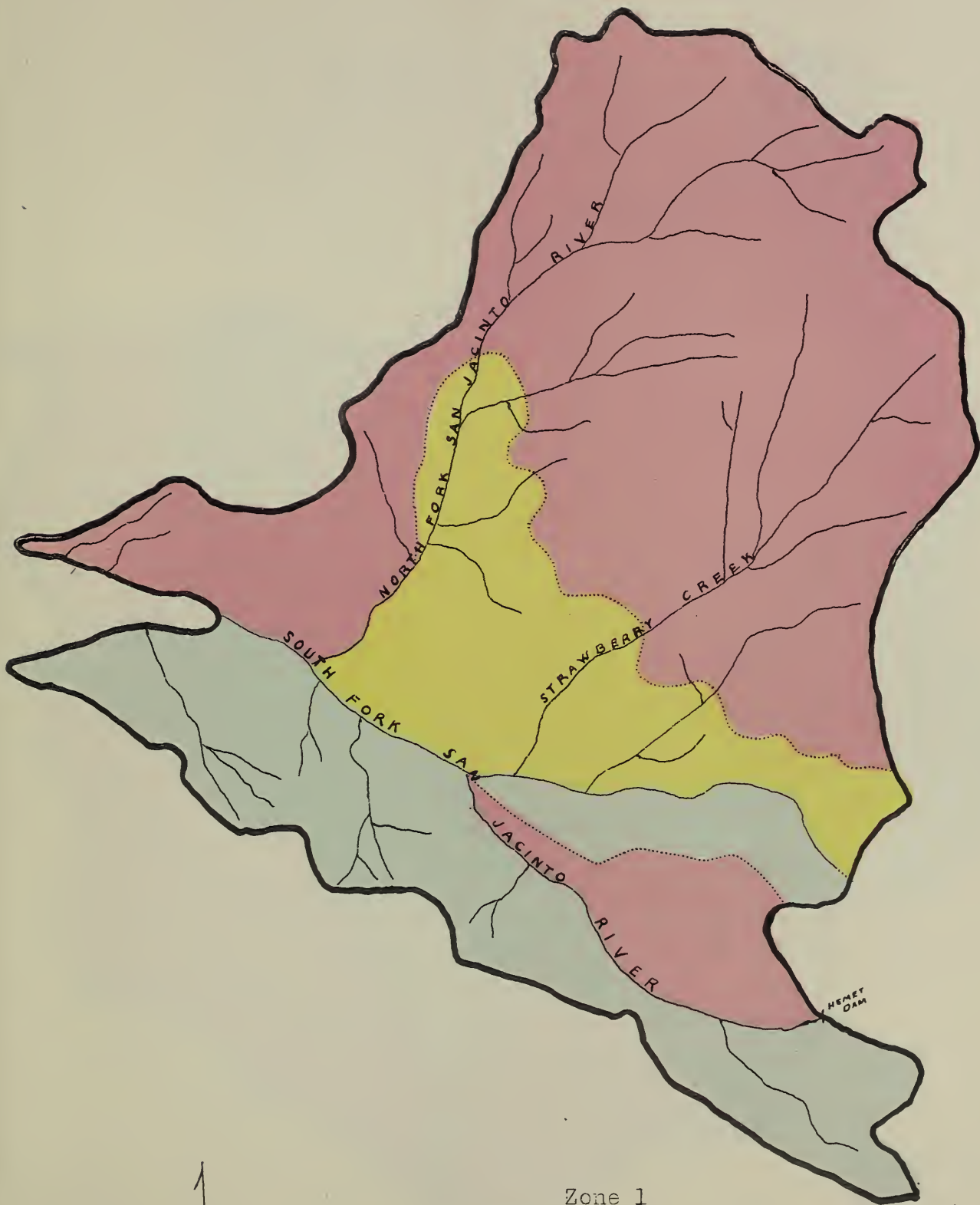










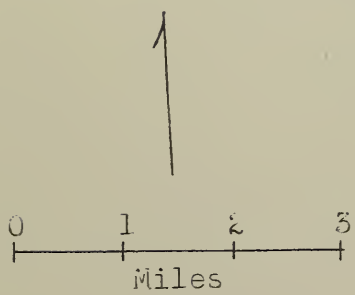


Zone 1

Zone 2

Zone 4

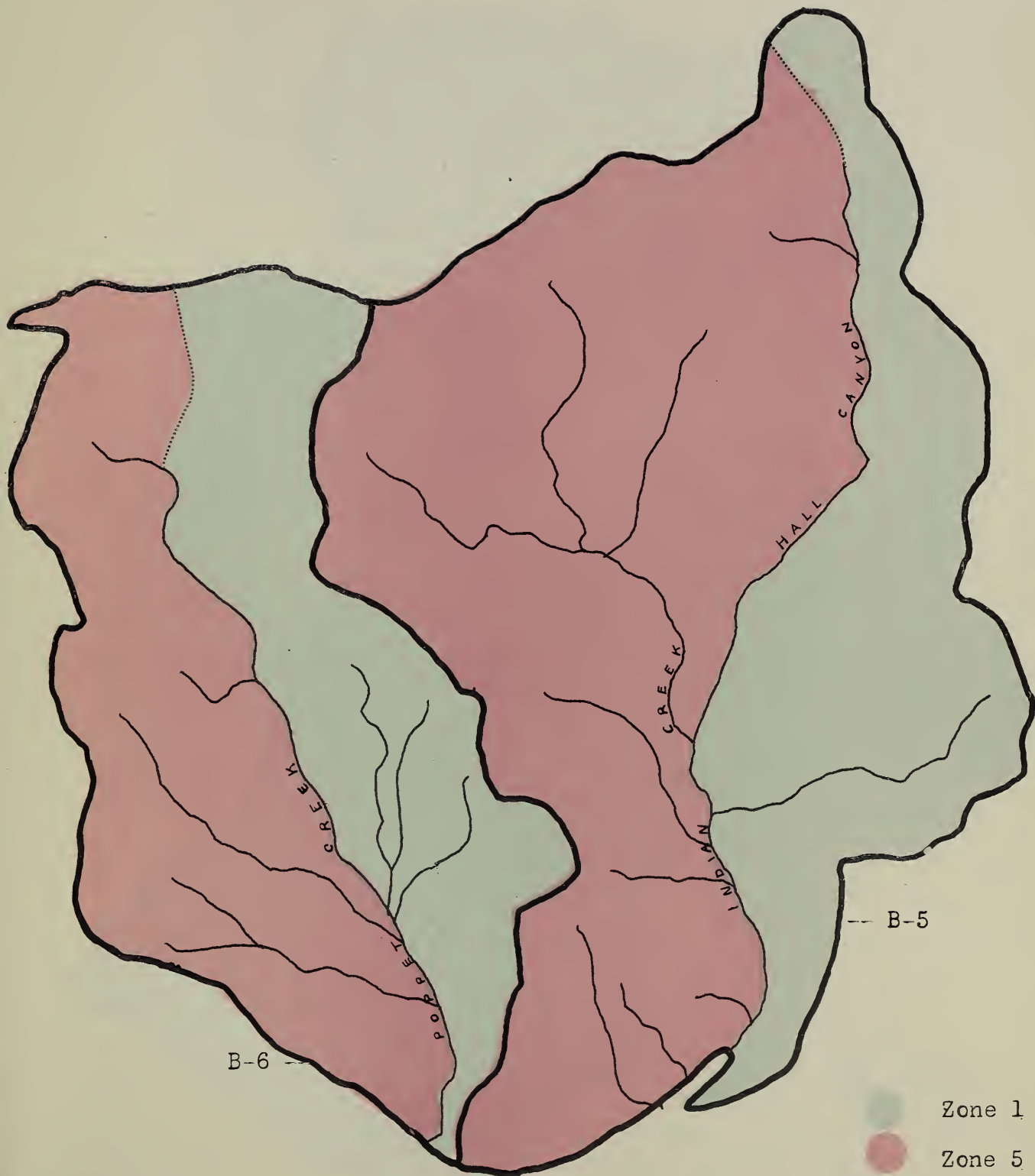
Zone 5





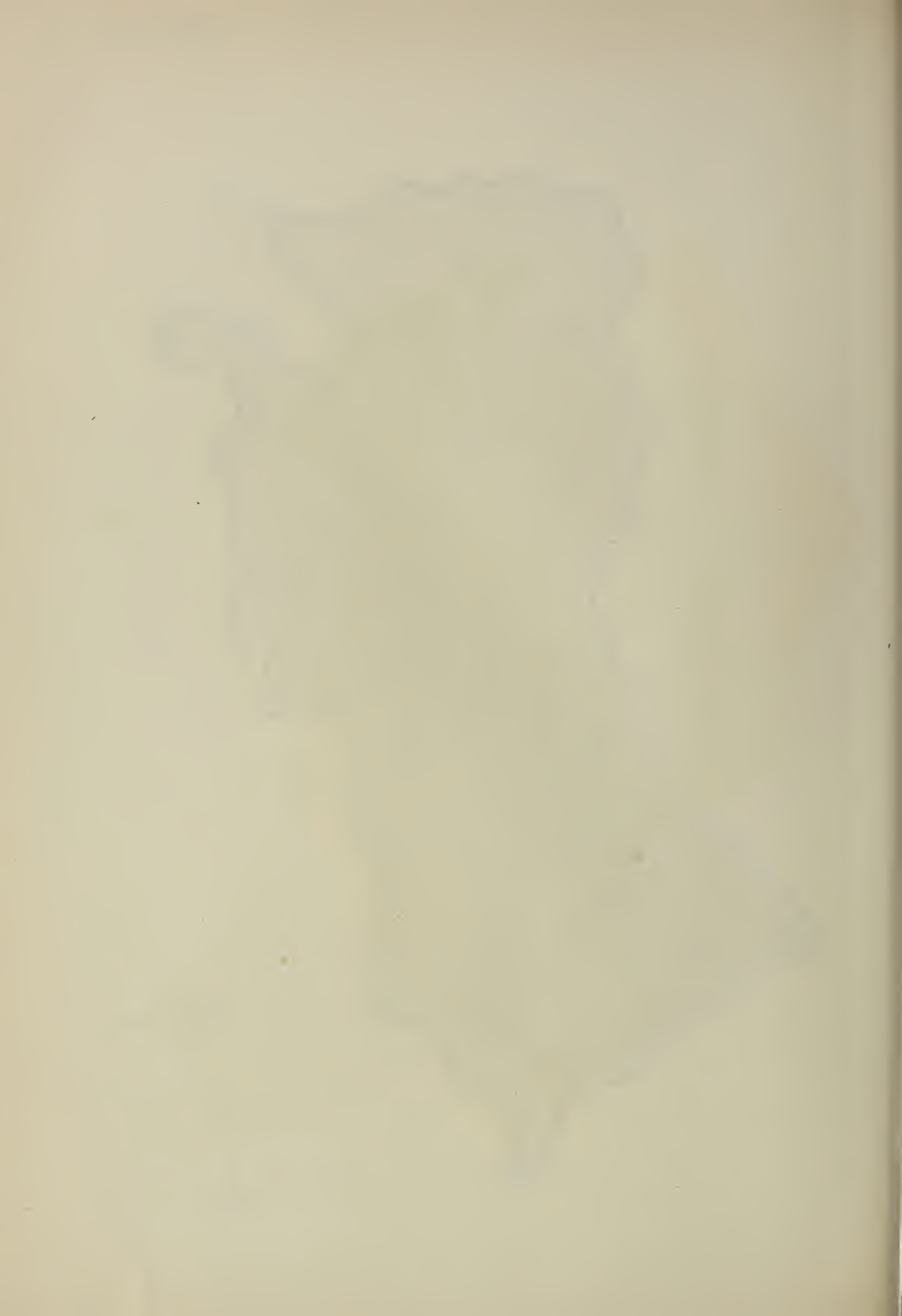


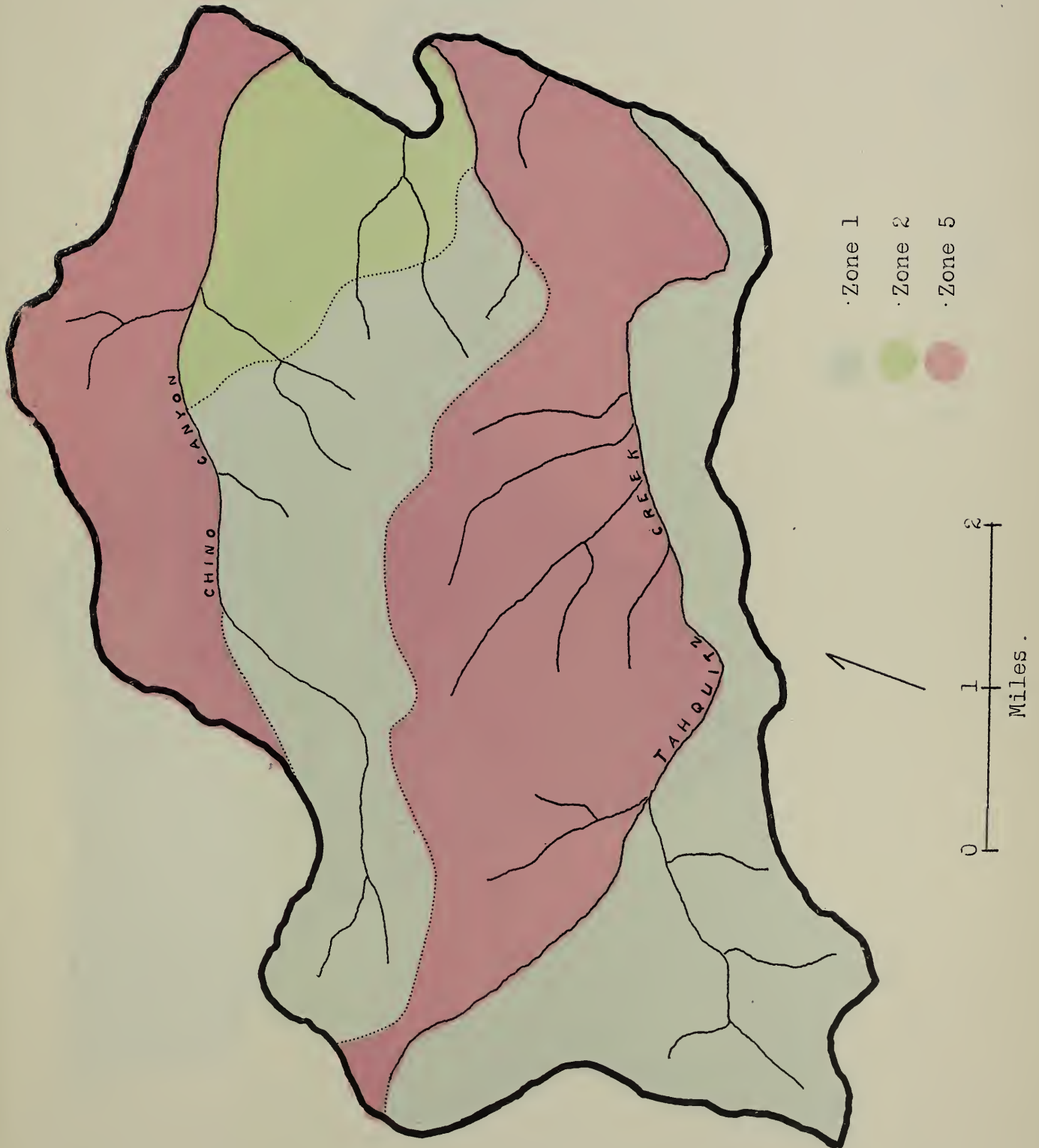
Indian Creek B-5  
Poppet Creek B-6









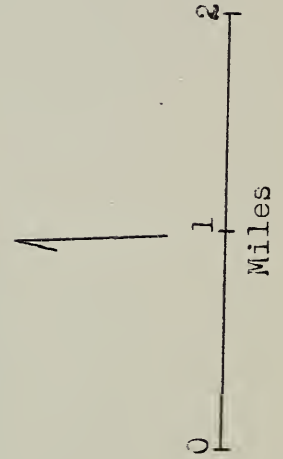








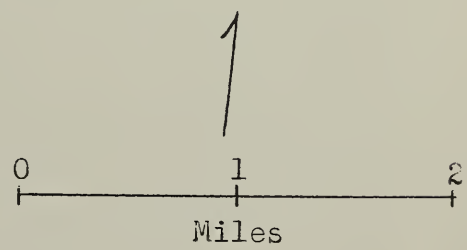
Zone 1







Zone 1  
Zone 2

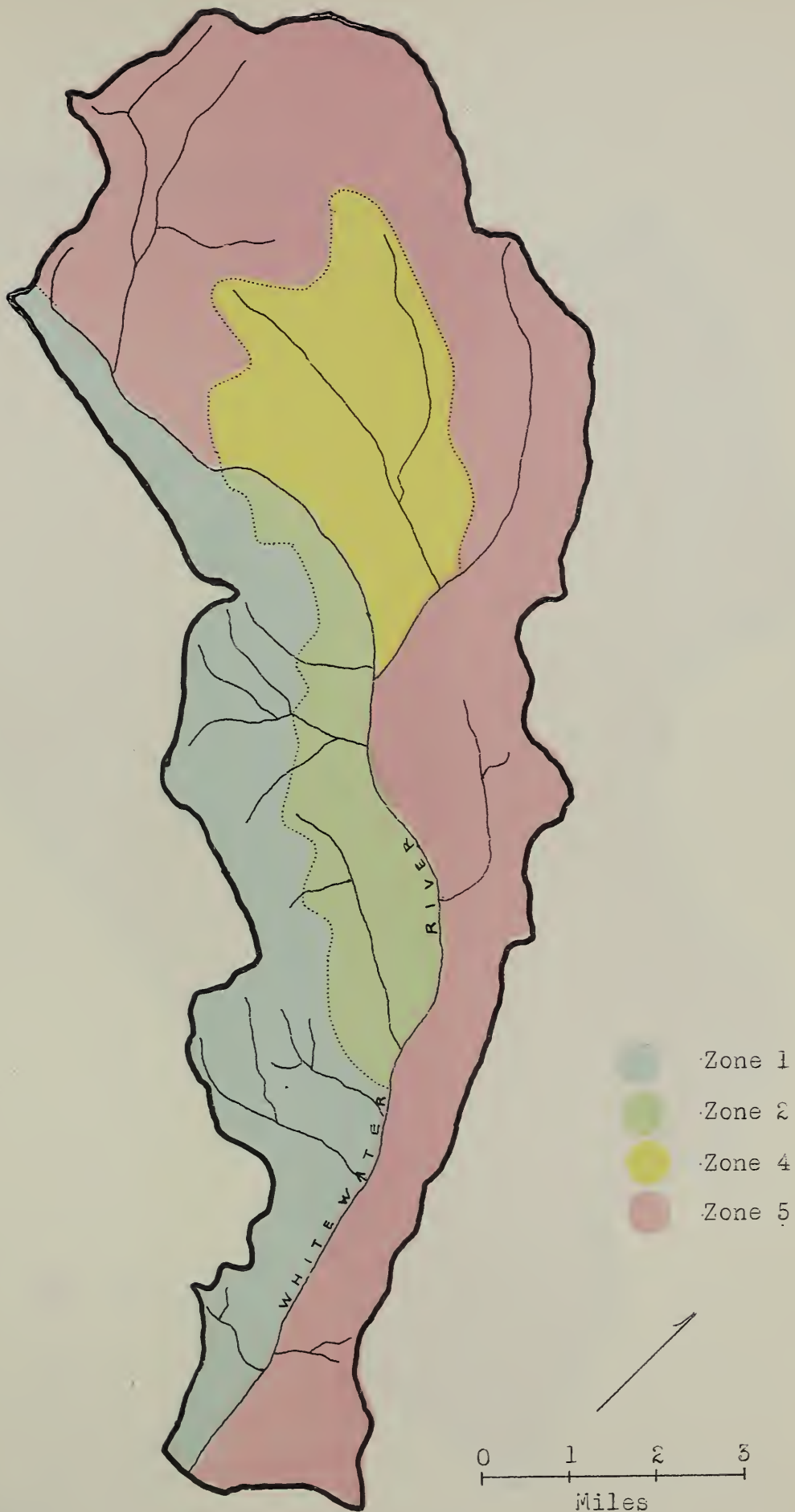




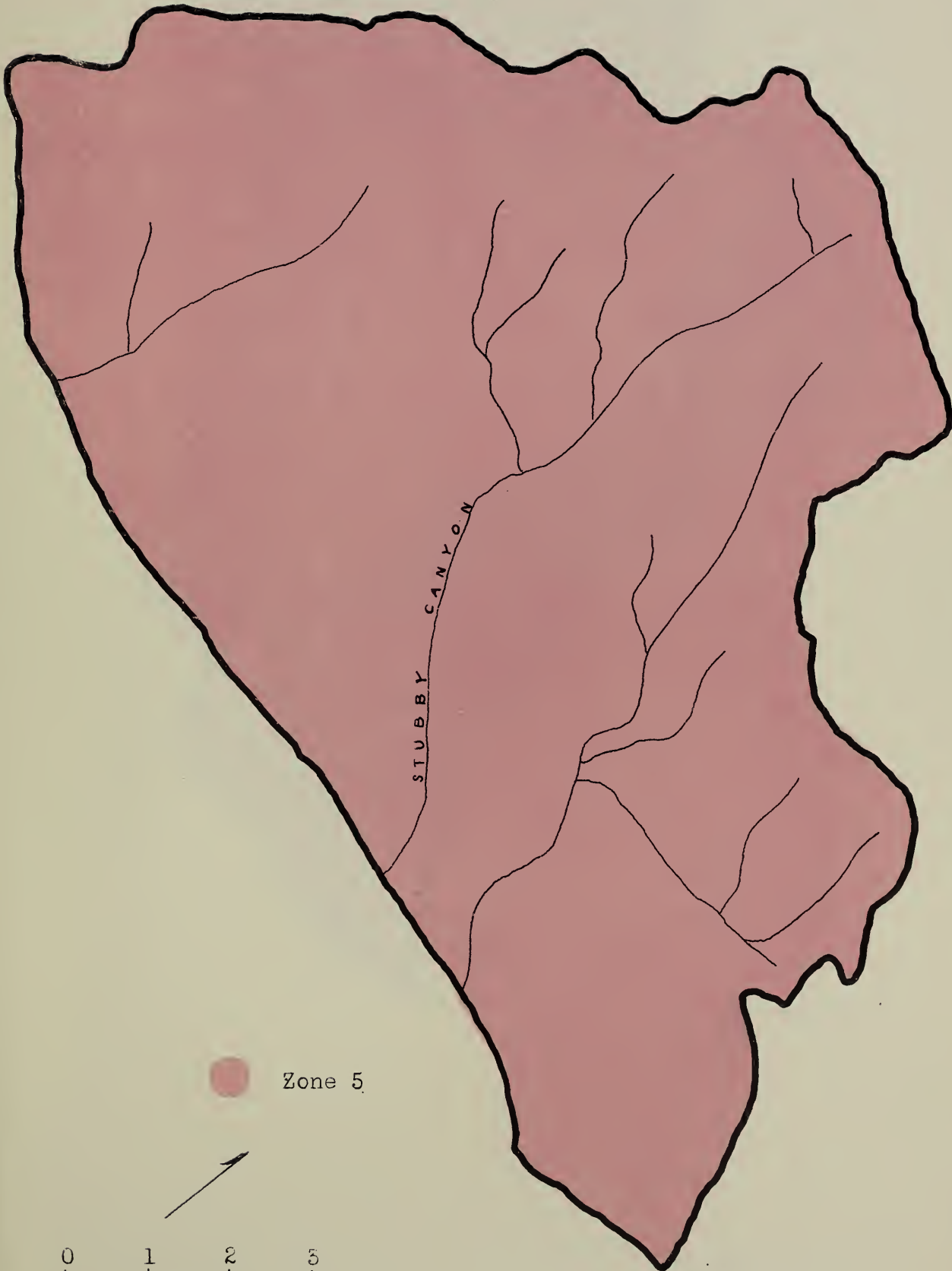






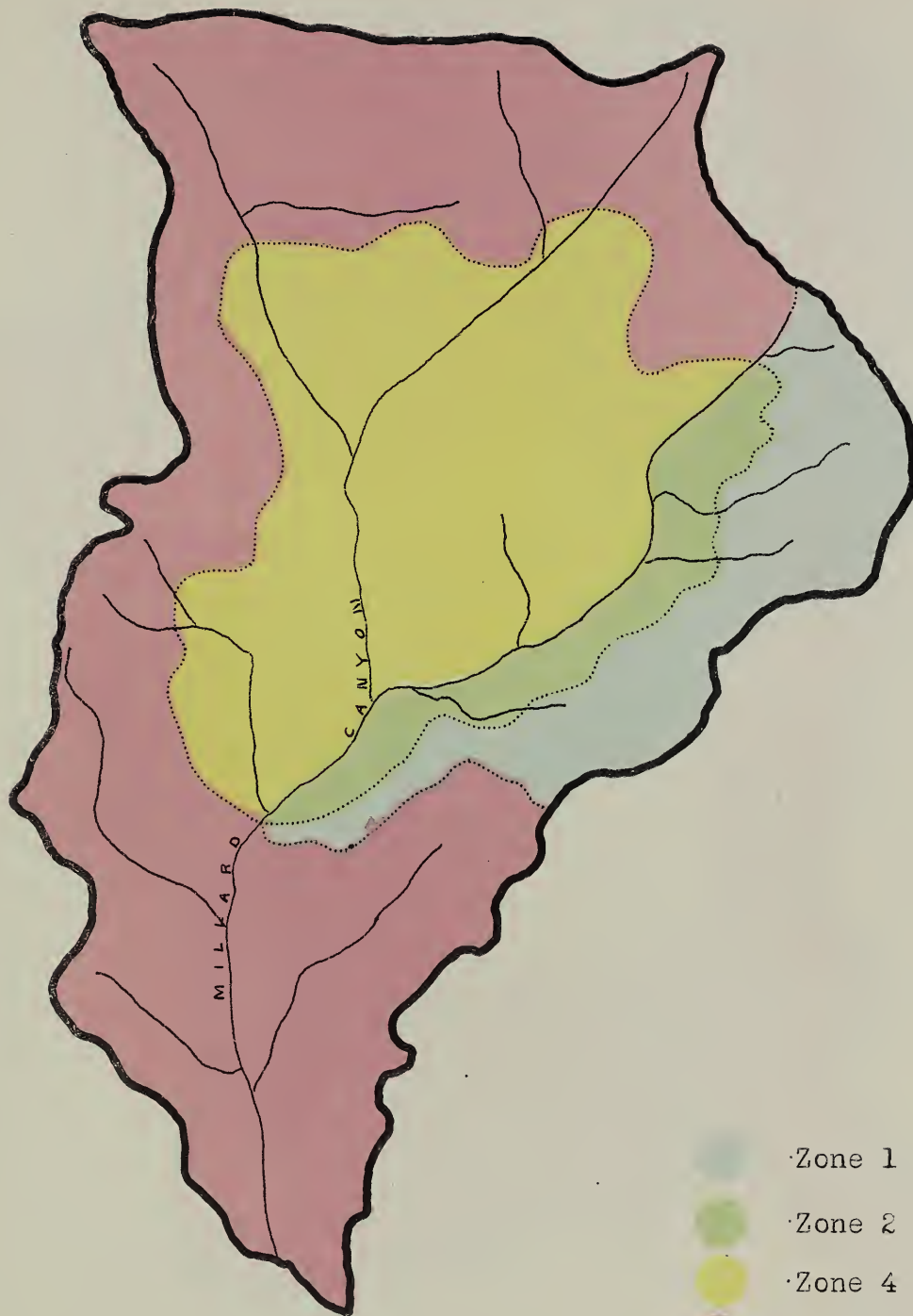




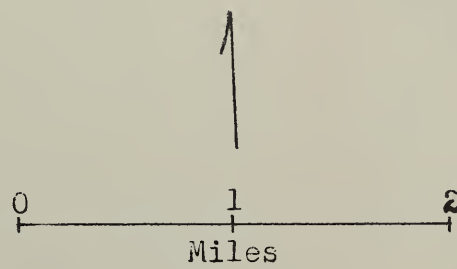




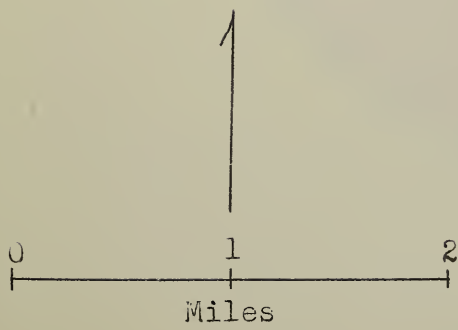
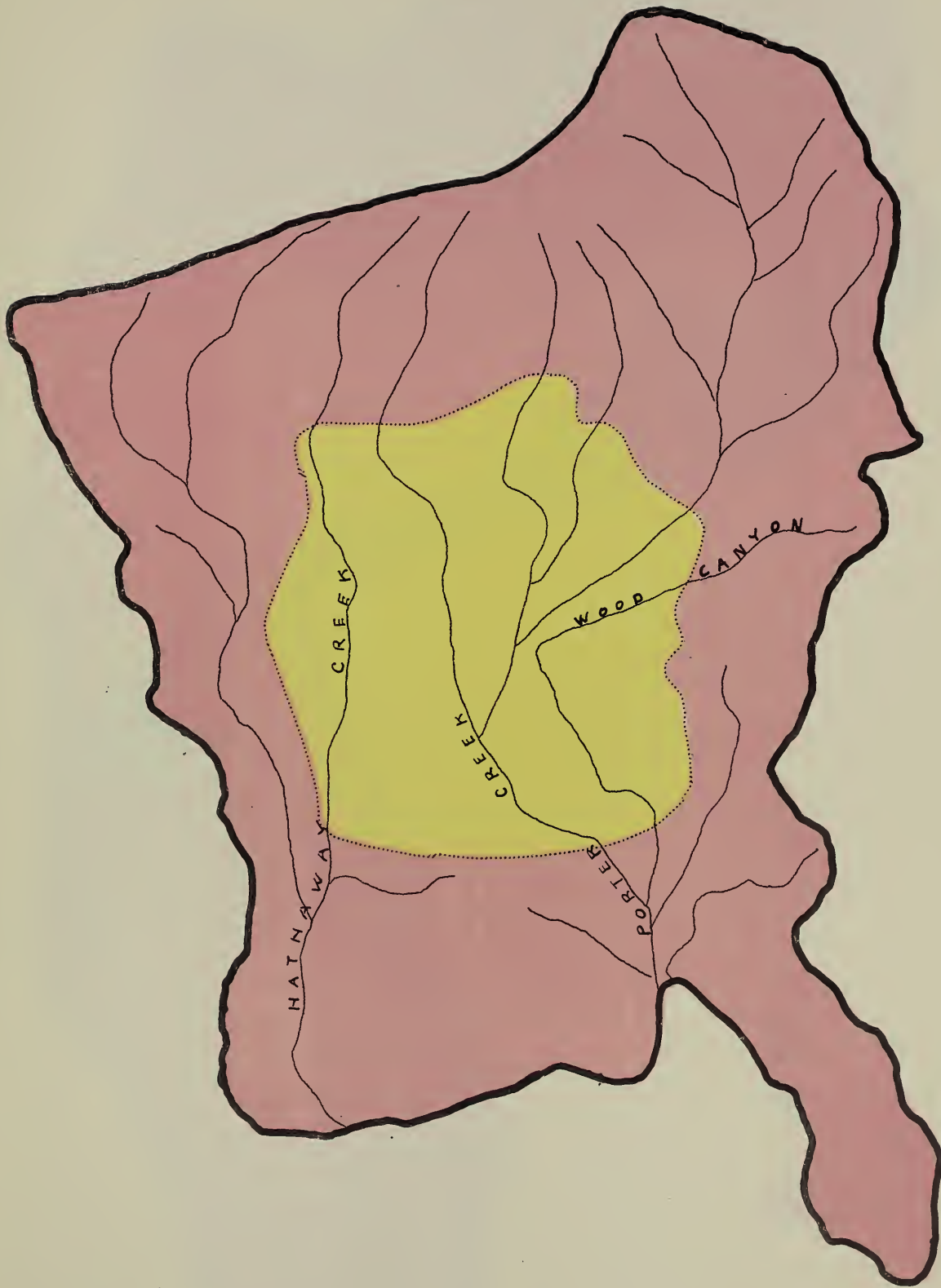




- Zone 1
- Zone 2
- Zone 4
- Zone 5

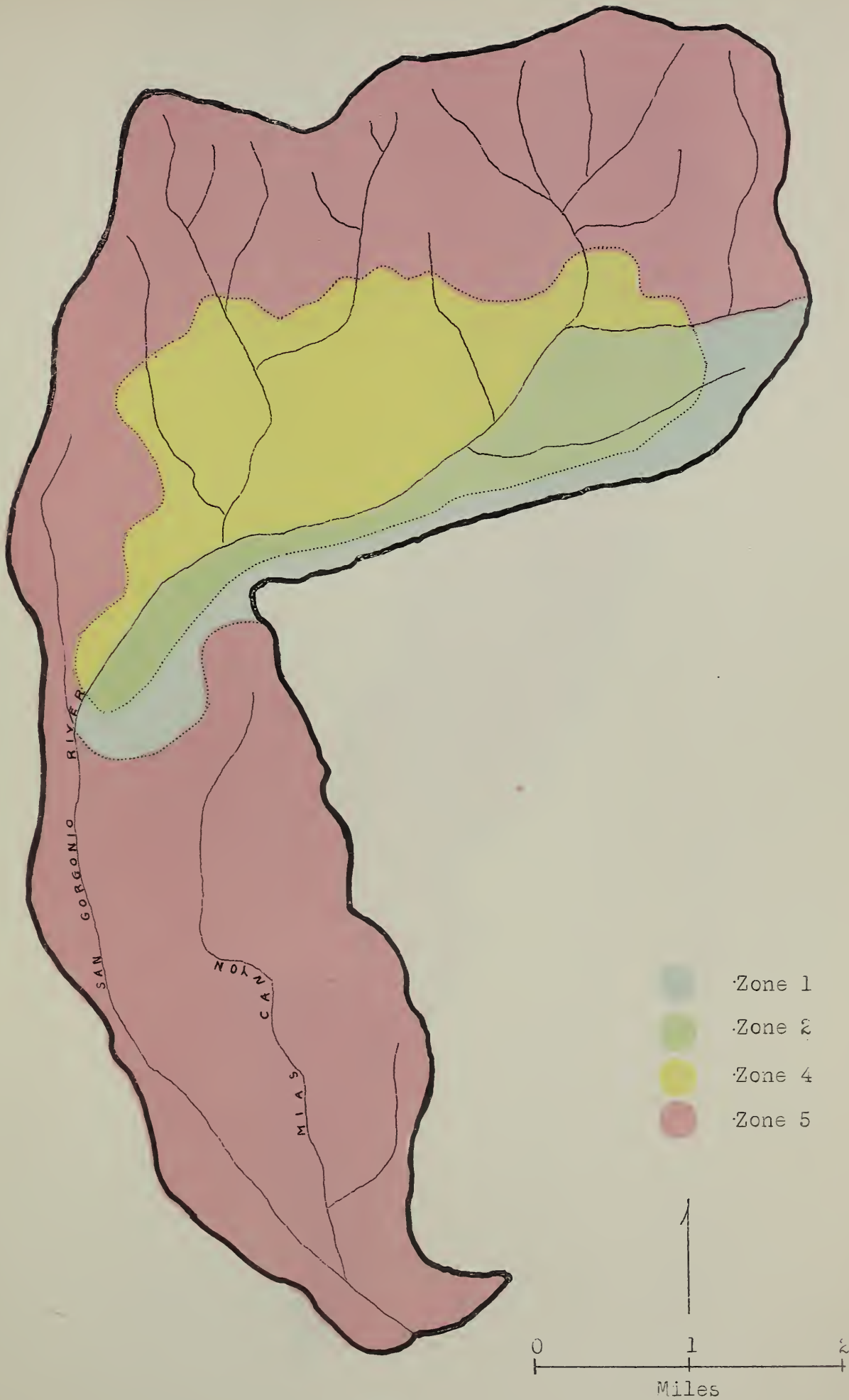






- Zone 4
- Zone 5

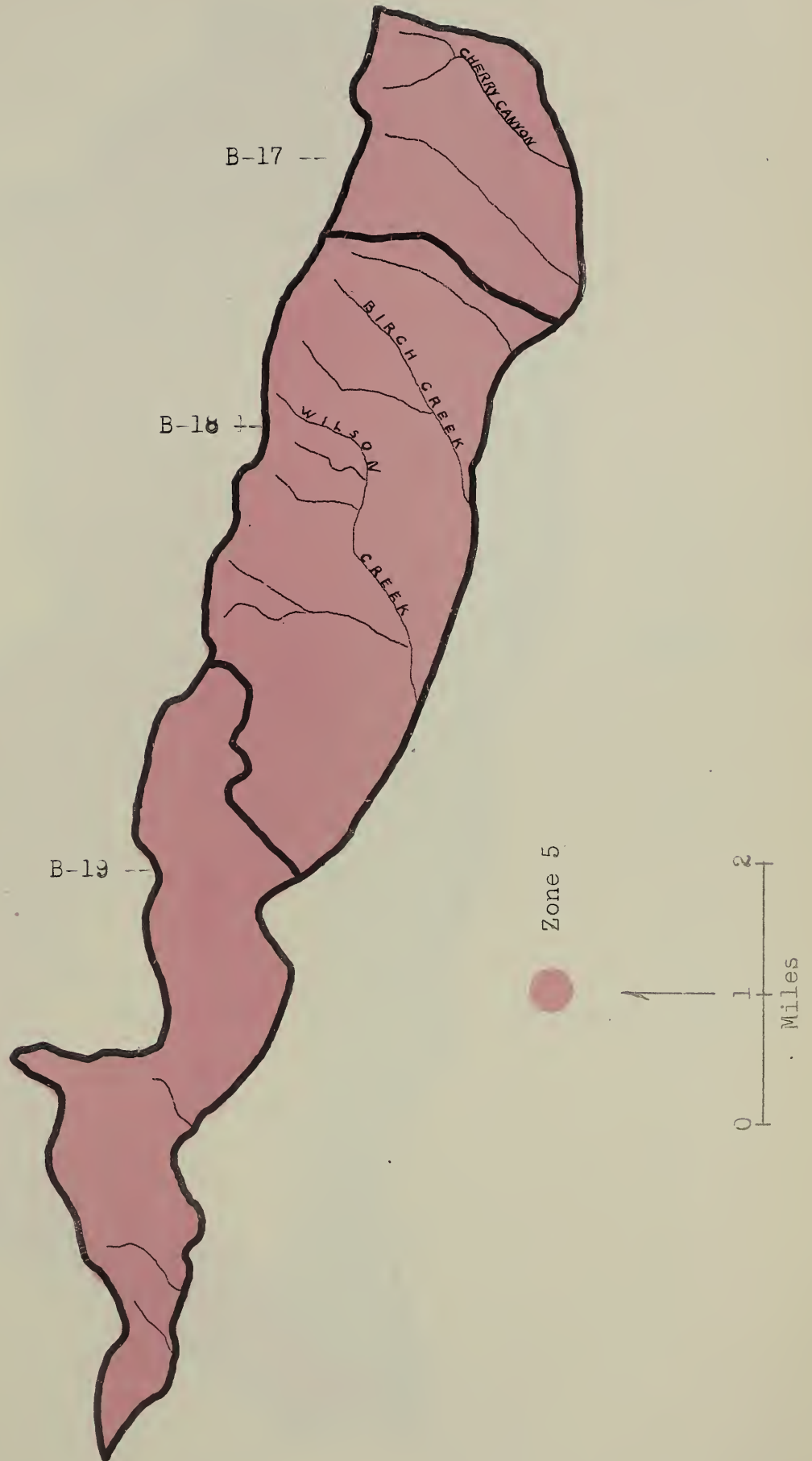




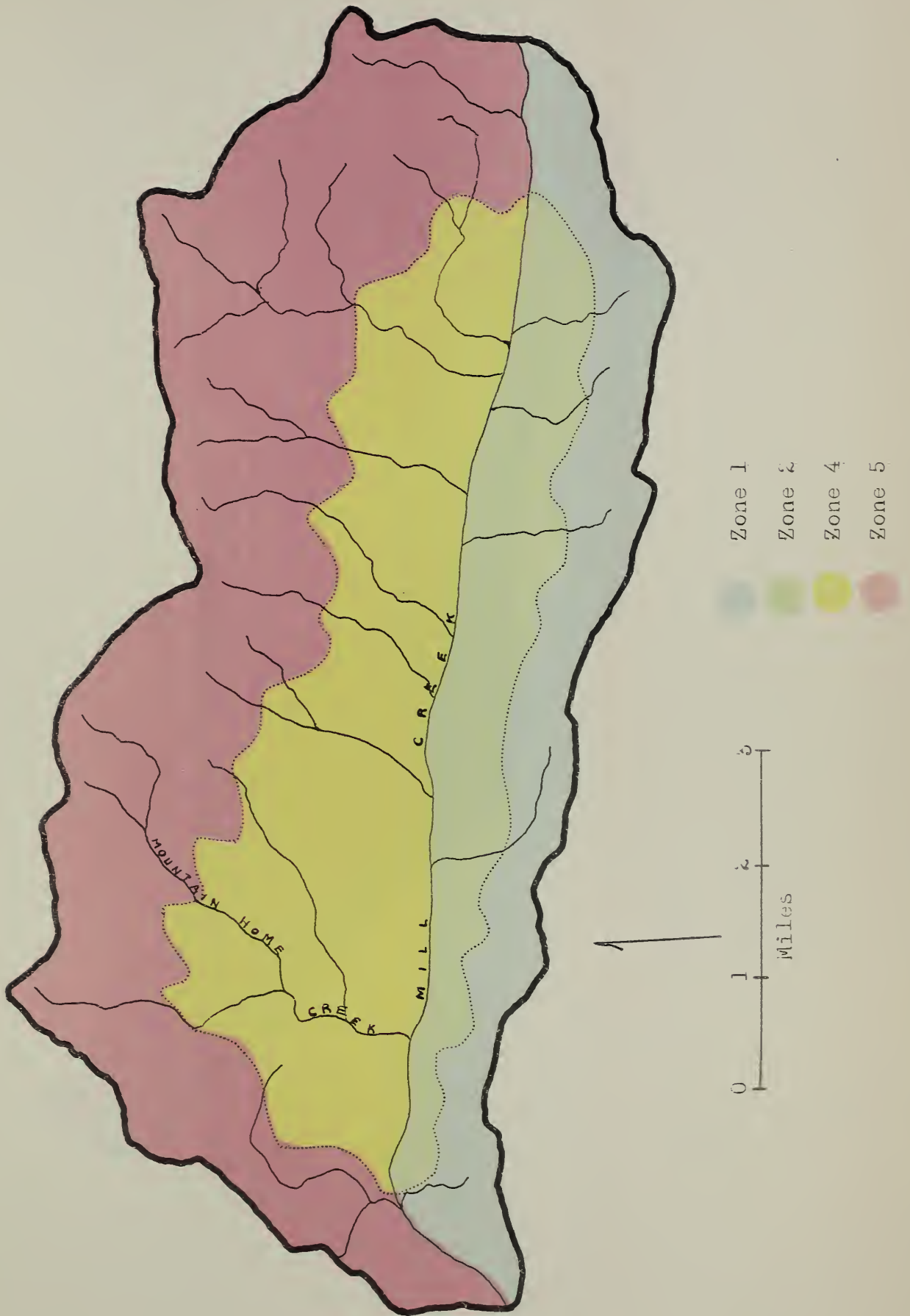




Cherry Creek	B 17
Potato Creek	B-18
Mill Creek Wash	B-19

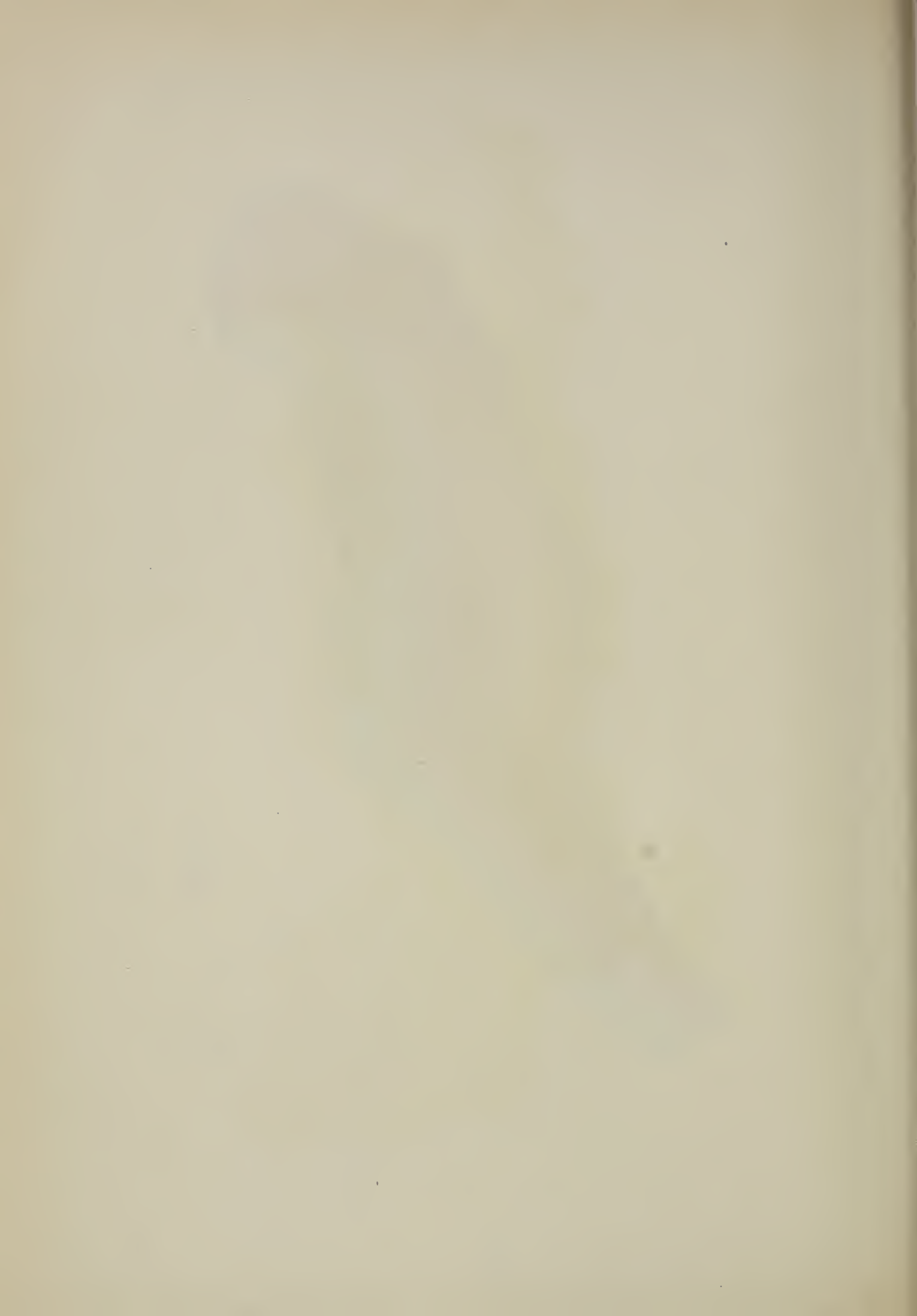




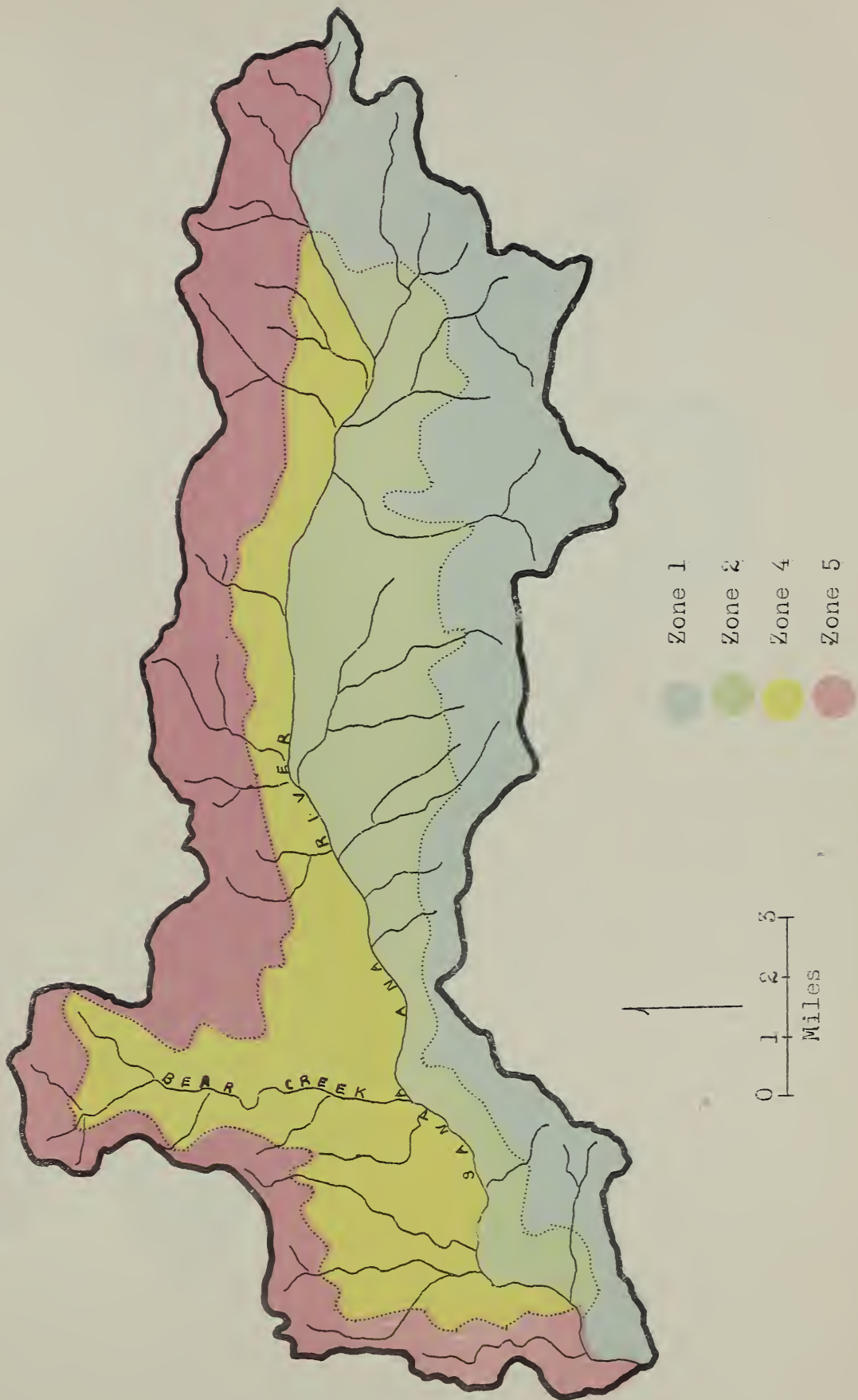




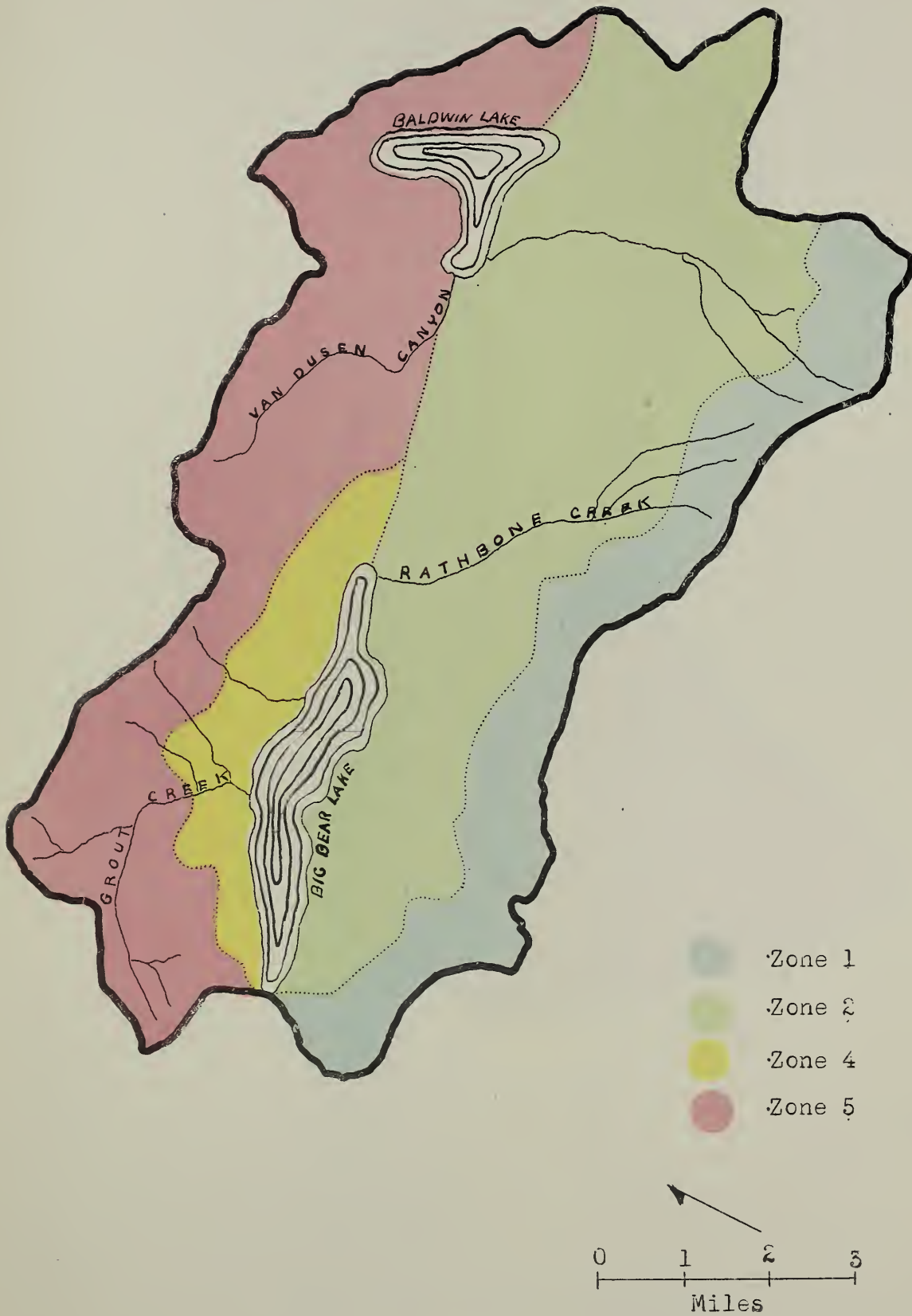








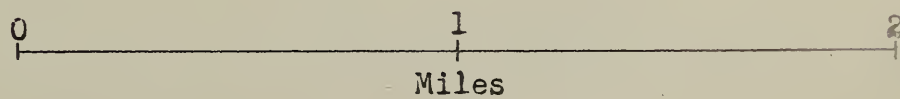








Zone 5



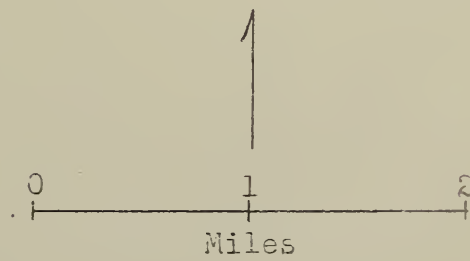






Zone 4

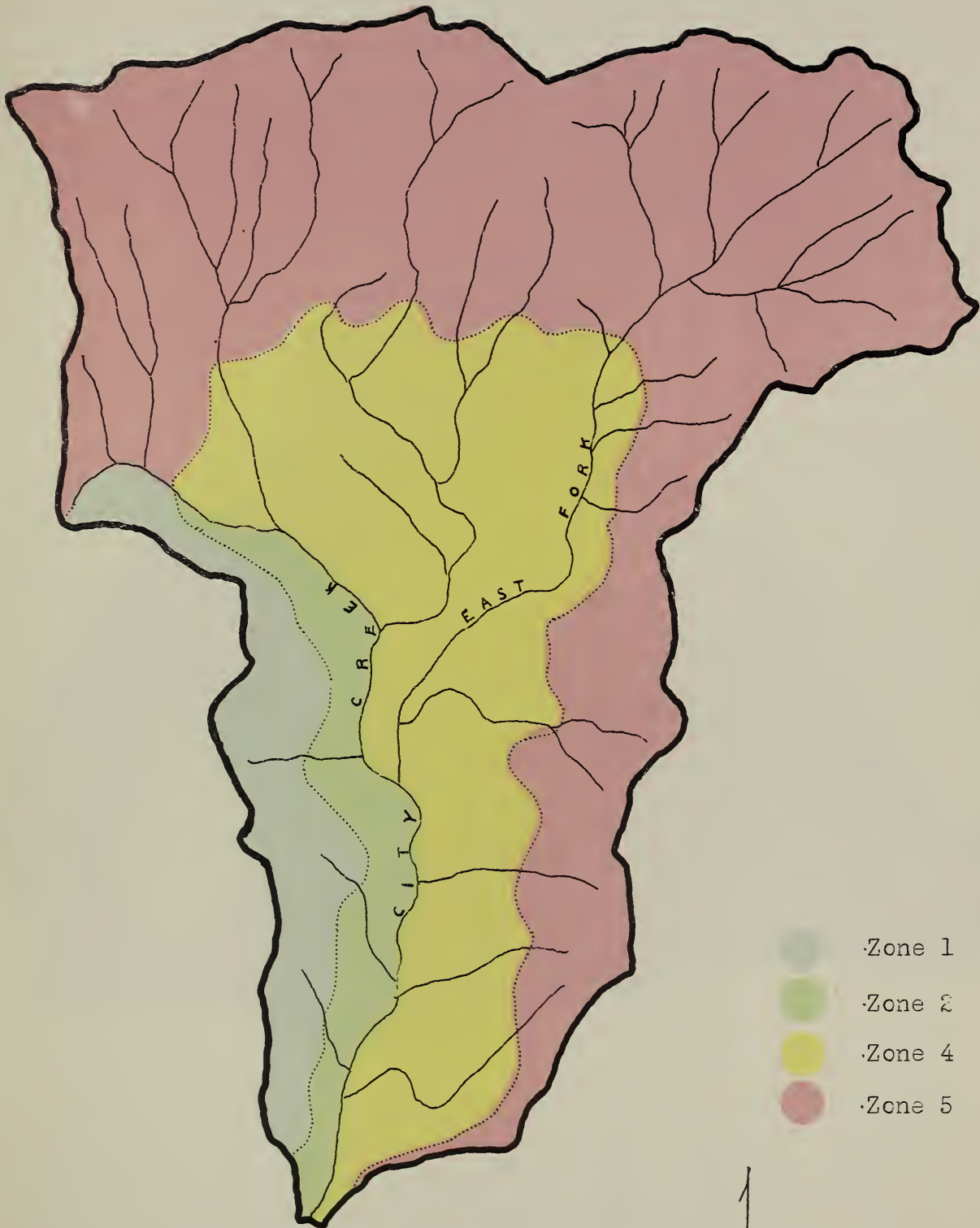
Zone 5



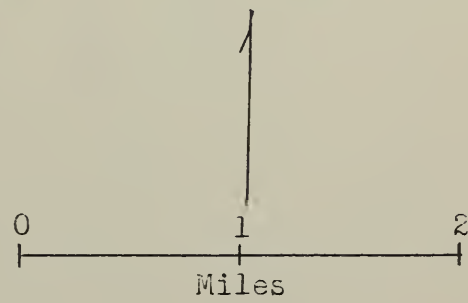






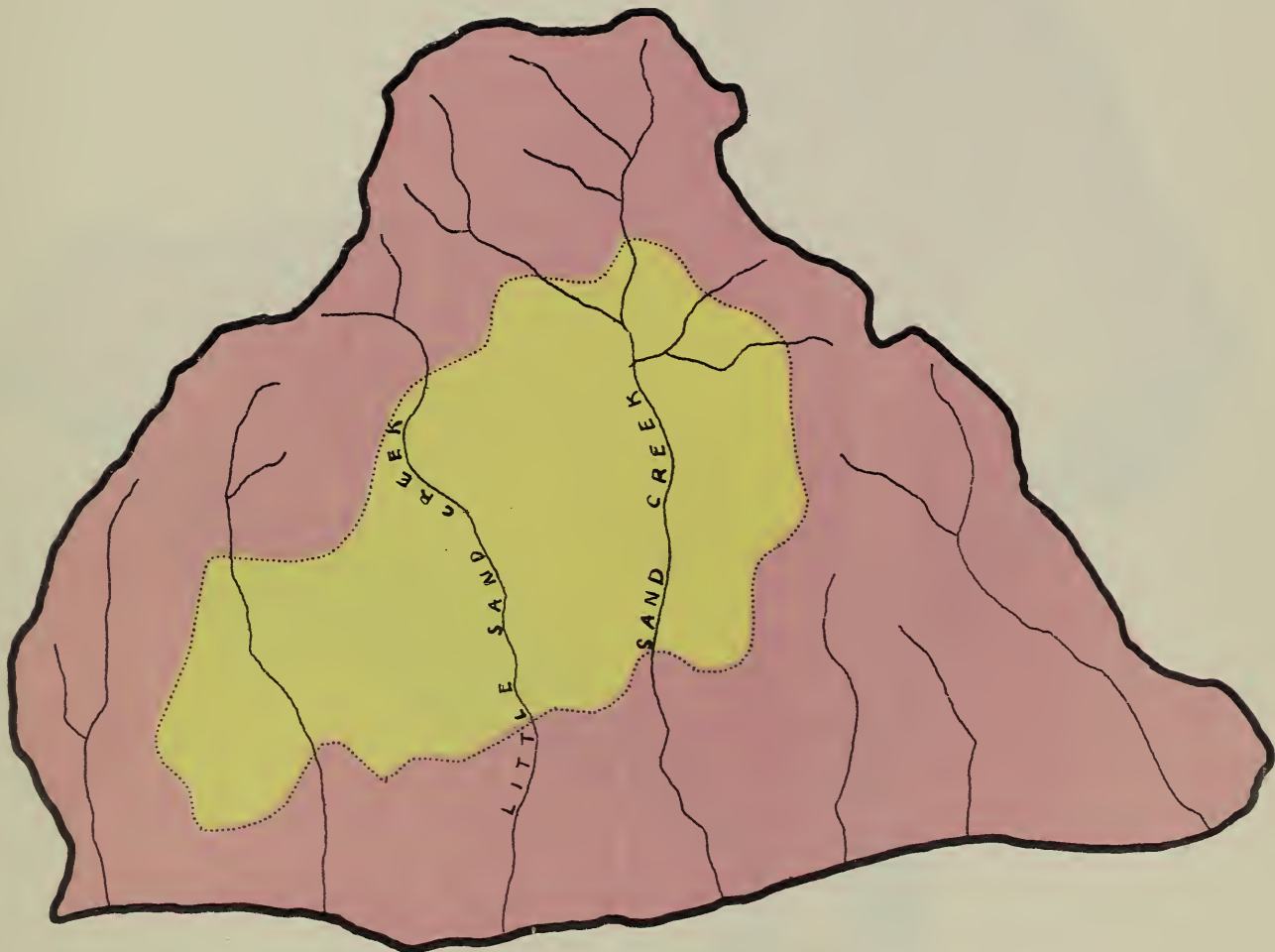


- Zone 1
- Zone 2
- Zone 4
- Zone 5

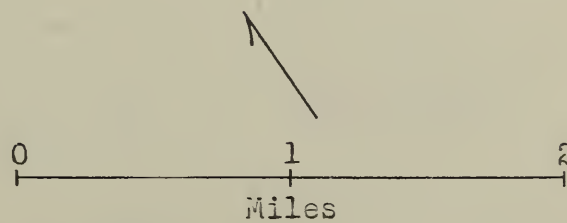




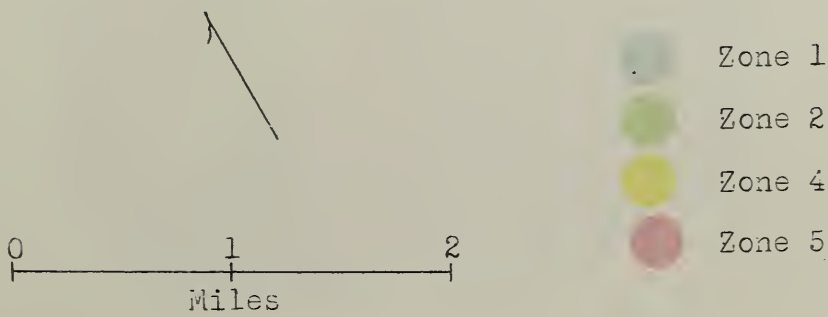




Zone 4  
Zone 5

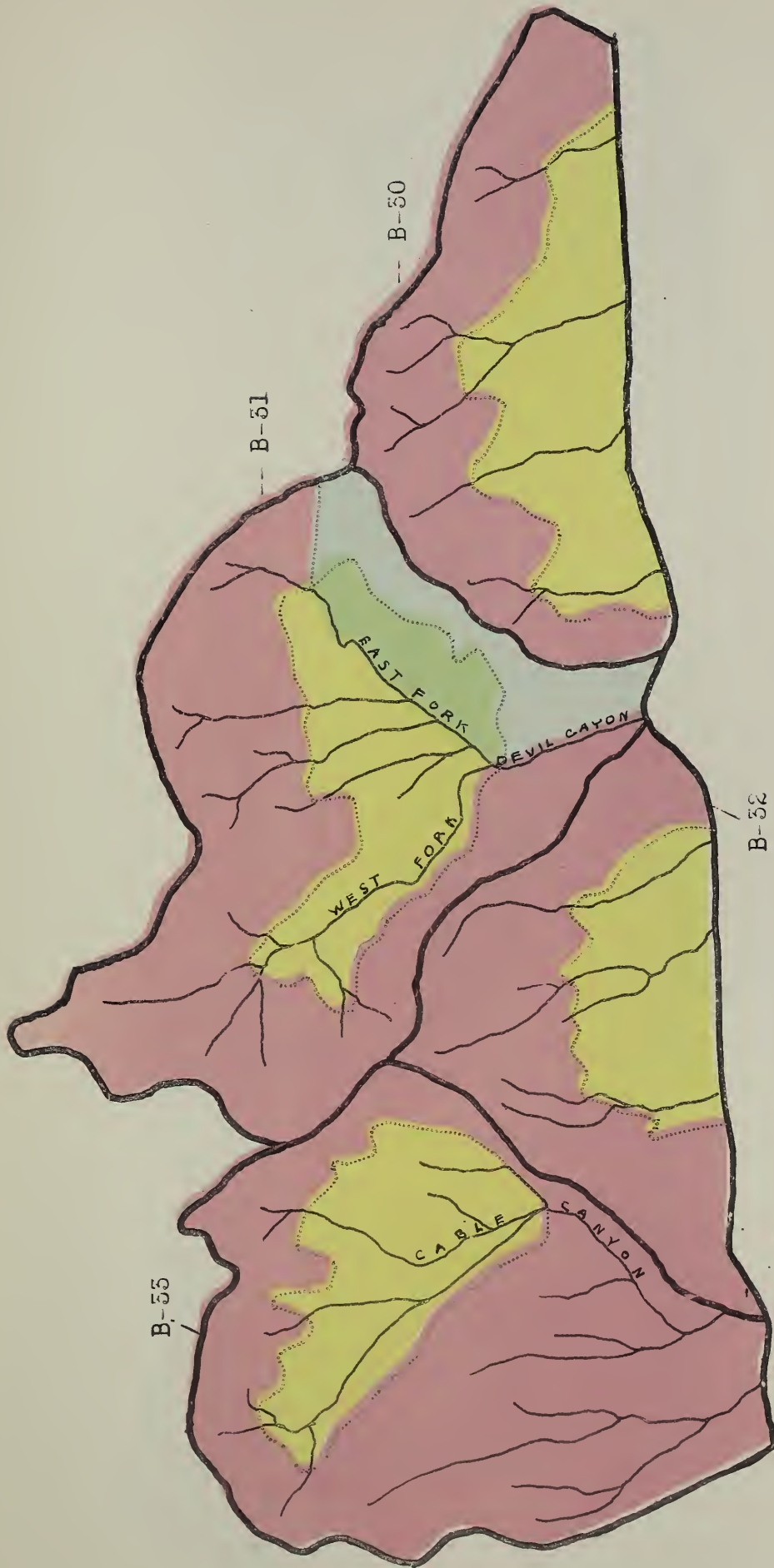








Badger Canyon	B-30
Devil Canyon	B-31
Bailey Canyon	B-32
Cable Canyon	B-33



Zone 1  
Zone 2  
Zone 4  
Zone 5

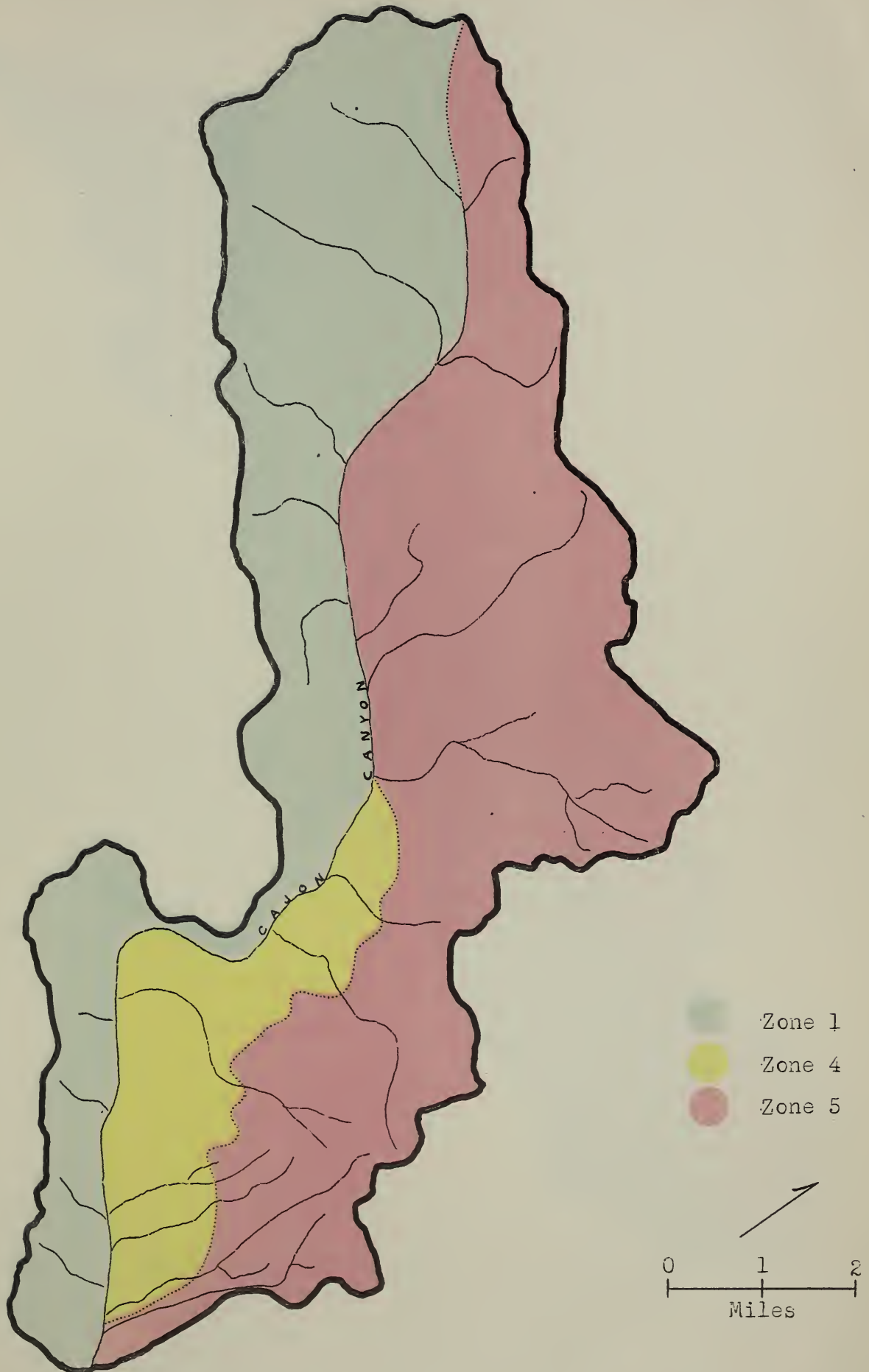














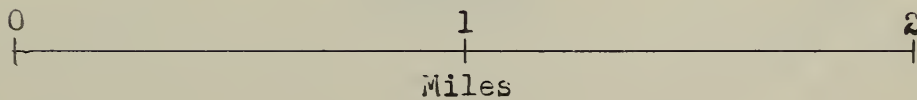




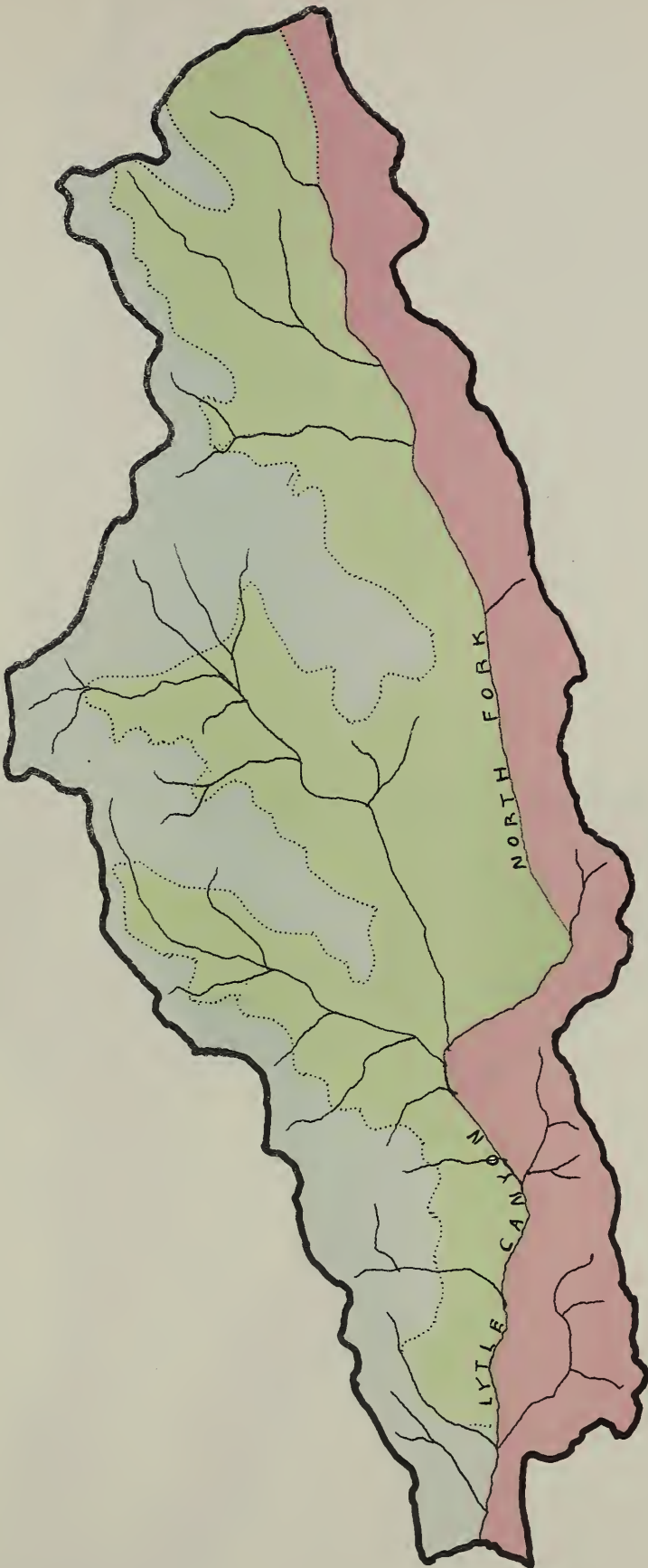




Zone 5





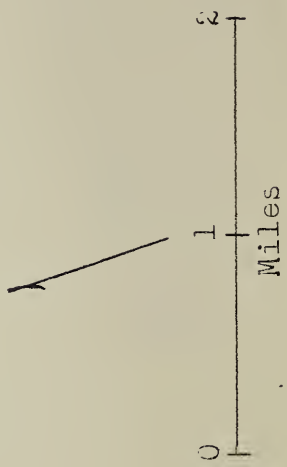
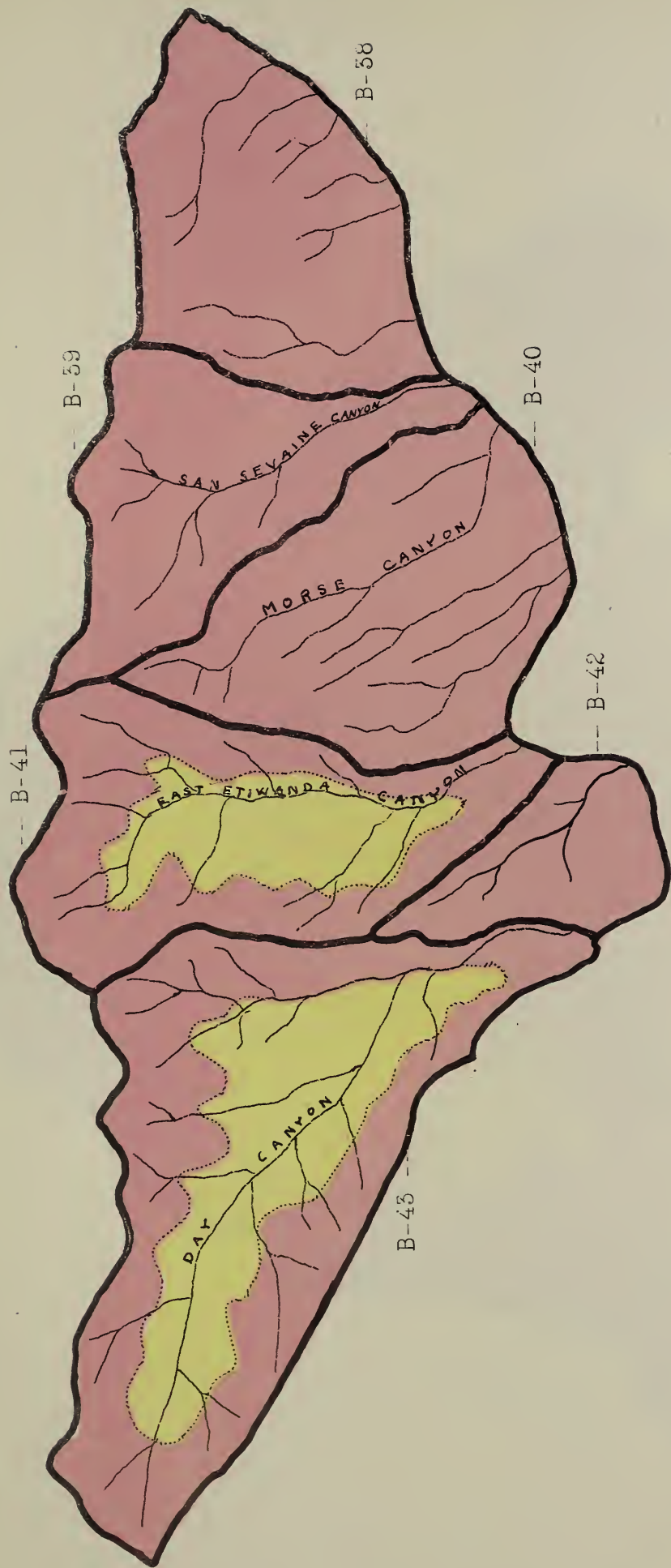


- Zone 1
- Zone 2
- Zone 5

0 1 2 5  
Miles



Duncan Canyon	B-38
San Sevaine Canyon	B-39
Morse Canyon	B-40
Etiwanda Canyon	B-41
Day Guard Station	B-42
Day Canyon	B-43



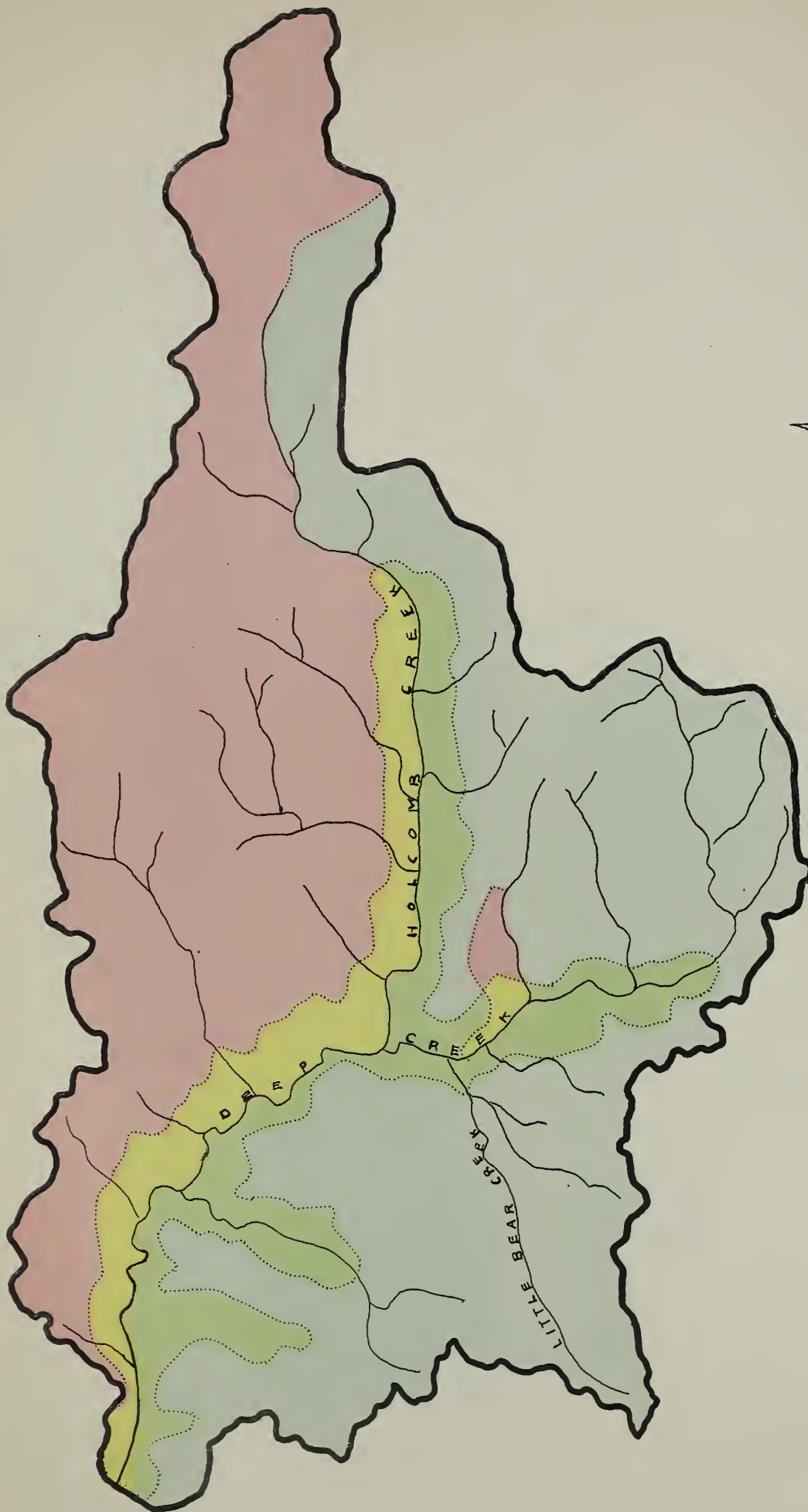




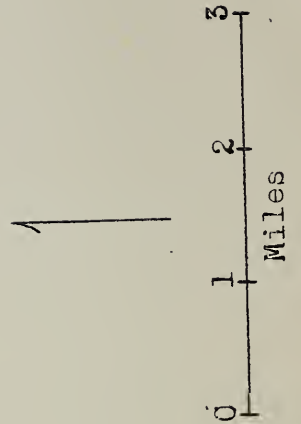
Day Wash	B-44
Deer Canyon	B-45
Alta Loma	B-46
Cucamonga Canyon	B-47
Frankish Canyon	B-48



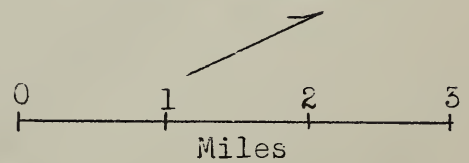
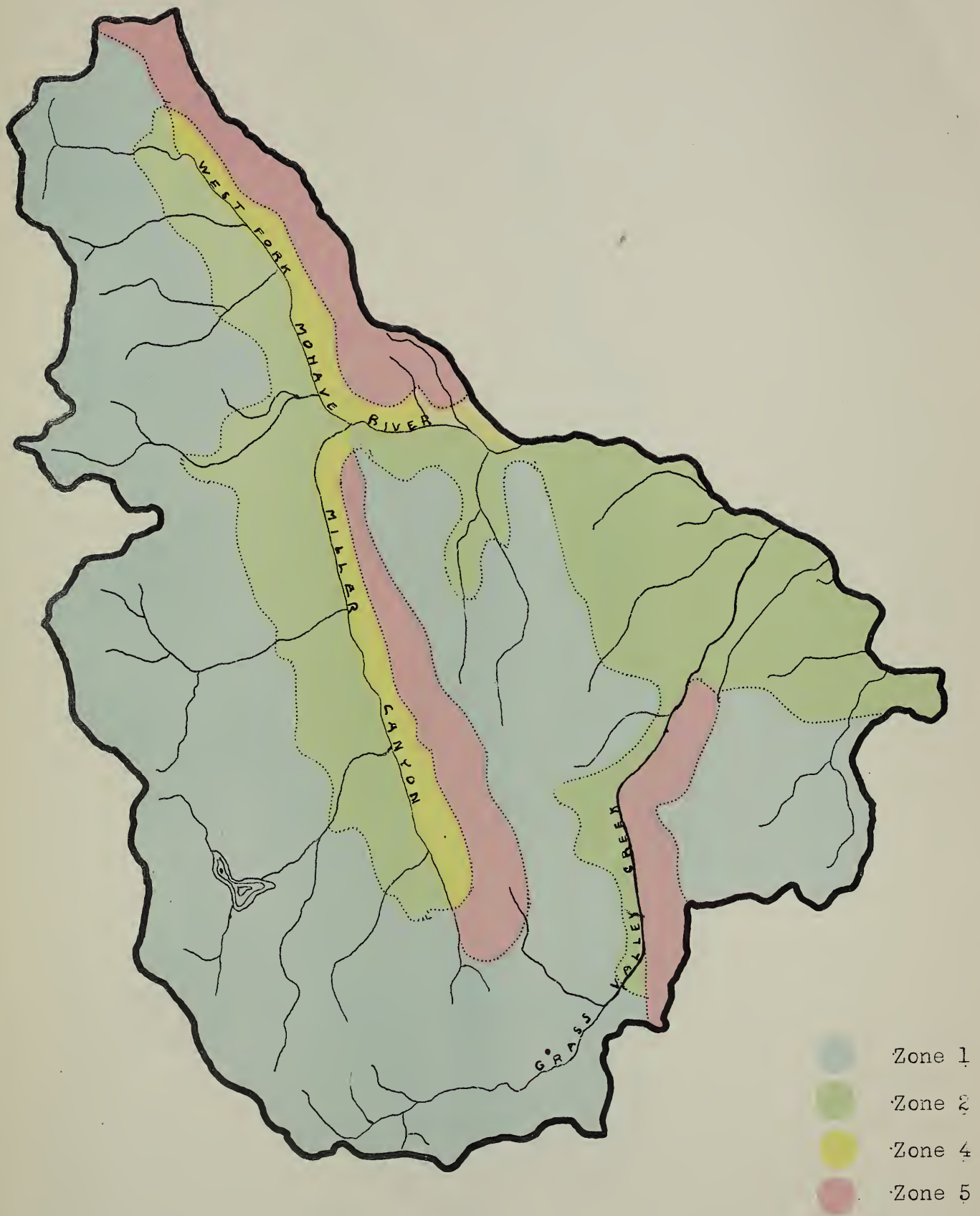




Zone 1  
Zone 2  
Zone 4  
Zone 5

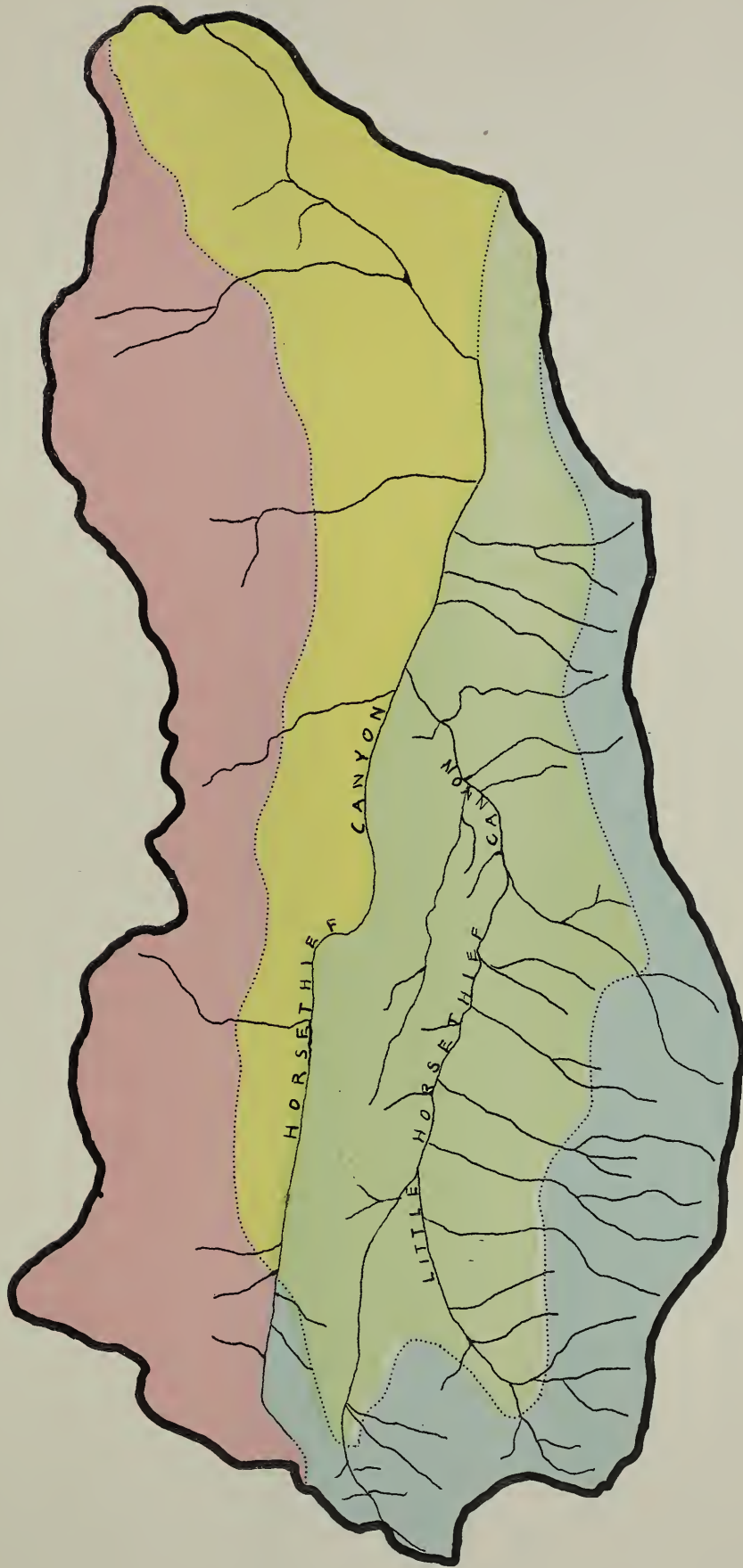












- Zone 1
- Zone 2
- Zone 4
- Zone 5

